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ABSTRACT

This guide is intended for use in providing in-depth formal classroom and on-site instruction in the principles of business and financial management as they apply to operating and managing orchards. Designed to be used with an accompanying Orchard Business Management Record Book, this unit (i.e., the first year) of the course deals with establishing an orchard recordkeeping system. The unit contains 14 separate lessons to be taught over 19 meetings (each lasting 2.5 hours). The design of all of the lessons is based on a problem-solving approach, with each lesson including a review, objective, motivation techniques, key questions, instructional text, group discussion questions, a review of major conclusions, and an orchard site visit. Handouts and transparency masters are provided at the end of each lesson section. This unit deals with establishing and maintaining various types of records (including payroll, enterprise, stored crop, credit, family living expense, and cultural records) and with planning cash flows. (MN)

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ED296151

ORCHARD BUSINESS MANAGEMENT

UNIT I

Establishing An Orchard Record Keeping System

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Tree Fruit Production Program
Wenatchee Valley College
Wenatchee, Washington
July 1, 1988

CE050446

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FORWARD

The Orchard Business Management curriculum materials and accompanying Orchard Business Management Record Book were developed pursuant of federal grants awarded through the Washington State Board for Vocational Education and the Washington State Board for Community College Education respectively.

The Tree Fruit Production Program at Wenatchee Valley College continually strives to assess the educational needs of the tree fruit industry in North Central Washington and to adjust or develop program components consistent with those needs. The Orchard Business Management course of study is a manifestation of that commitment. The course was designed to provide extensive instruction in financial management of the orchard operation. The concepts and procedures presented in these curriculum materials will assist orchardists in making sound financial management decisions to maximize orchard profitability and to achieve orchard business and family goals.

The Orchard Business Management course consists of two years of formal classroom and individualized, on site instruction. Unit I, Establishing an Orchard Record Keeping System, is to be taught the first year and Unit II, Management and Analysis of the Orchard Operation, is taught the second year, to enrollees who have completed the first year of instruction. There are 14 separate lessons taught over 19, 2.5 hour meetings in Unit I, and 13 lessons taught over 19, 2.5 hour meetings in Unit II.

The lessons presented in the Orchard Business Management curriculum should serve as a guide only. Orchard Business Management instructors should modify, add or delete lesson as per their local industry and to meet their particular instructional objectives.

Class meetings are intended to be held twice monthly during the instructional year. Likewise, twice monthly, 1.5 - 2.0 hour, individualized, on-site instruction sessions should be scheduled for each enrollee. These on-site instruction sessions are to follow-up and support the classroom lessons. The instructional year should be configured to avoid the orchardists' busiest time of the cropping season. Class should start after harvest, run through the winter and spring, and end sometime in June.

These curriculum materials and the Orchard Business Management Record Book will be made available to anyone, at cost, upon request. Components of the record book and the curriculum materials will be updated and revised as necessary to reflect changes in law, regulations, and the tree fruit industry. Purchasers of the curriculum materials will be advised as to the availability of these revisions.

Kent Mullinix, Director
Tree Fruit Production Program
Wenatchee Valley College
Wenatchee, Washington
July 1, 1988

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TO THE INSTRUCTOR - SUGGESTIONS FOR USE

Unit I of the Orchard Business Management Curriculum, Establishing and Orchard Accounting System is designed to help orchardist establish and learn to maintain a complete orchard record keeping system. The 14 lessons correspond to the various forms within the Orchard Business Managemnet Record Book.

Unit II of the Orchard Business Management Curriculum is Management and Analysis of the Orchard Operation. This unit is composed of 13 lessons designed to help orchardists develop skills to better analyze their business and improve their managerial skills used in their operation.

Lesson components and organization is based on the University of Missouri Format for Adult Instructionial Material. That format reflects a problem solving approach. The major components of each lesson include the review, objective, motivation, key questions, introduction of information, group discussion, conclusions, orchard visit, and materials needed.

Transparency and handout masters needed for the lesson are located at the end of each lesson. Transparency and handout masters are designated sequencially in the following manner TM and/or HO to signify the use as a transparency or handout master respectively, I or II signifying the unit number, /n indicating the lesson number, and /n indicating the number of the master within the lesson. In a few instances, masters are designated from the previous lessons. Transparency and handout masters of the forms from the record book are designated by their form number.

Since a curriculum cannot be "all things to all people" instructors are encouraged to use these units as a guide to teaching an Orchard Business Management course of study. For example transparency and handout nasters are suggested for use, but could be replaced with self designed materials which the instructor feels more appropriate in a specific community. Furthurmore, while one instructor uses all masters within lessons another may only use a select few because the information could be presented in a more appropriate manner for a particular setting.

Each enrollee needs a copy of the Orchard Business Management Record Book In addition the instructor may wish to suggest enrollees maintain a notebook in which, notes, handouts, and examples can be kept. This notebook can become a quick and easy reference for enrollees.

Though not mandatory it is recommended that computer facilities be available with enough stations for all enrollees for instruction of several lessons which involve the use of computer programs. Instructors may wish to obtain an IBM compatible portable computer with a minimum of 640K RAM and 20 megabyte harddisk for use on orchard visits.

Before teaching a lesson, the instructor should thoroughly review the lesson and accompanying materials. Reading the lesson several times and highlighting, circling or color coding specific parts may help facilitate instruction.

The recommended number of teaching days for each lesson are as follows:

LESSON	RECOMMENDED DAYS
The Importance of Record Keeping in Meeting Business and Family Goals	1
Recording Receipts and Expenditures	2
Maintaining Payroll Records	2
Developing an Orchard Map and Land Inventory	2
Developing and Maintaining Enterprise Records	1
Developing a Tree Capitalization and Depreciation Schedule for Orchard Trees	1
Developing and Maintaining a Depreciation Schedule/Inventory for Machinery, Equipment, and Buildings	2
Maintaining a Record of Stored Crops	1
Recording Credit Sources	1
Establishing and Maintaining Family Living Records	1
Planning the Years Cash Flow	2
Preparing the Years Financial Statement	1
Preparing the Years Profit and Loss Statement	1
Maintaining Cultural Records	1
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UNIT II

LESSONS	RECOMMENDED DAYS
Economic Principles Improtant to Orchard Business Management	1
Analyzing Enterprise Returns To Costs	1
Income Tax Management Techniques	2
Closing the Record Book for Analysis	2
Using the Concepts of Time Value of Money	1
Utilizing Farm Credit	1
Planning Partial Budgets Using Packout Records	2
Determining the Economic Feasibility of Replanting Orchards	1
Marketing Washington Fruit	2
Labor Management Techniques	2
Organizing the Orchard Business	1
Estate Planning	1
Options for Computerized Record Keeping	2
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Additionally course/instructor evaluations are included at the end of each Unit. The prepareres of this curriculum would appreciate any information from those evaluations, about course content, that might serve to add to or improve this curriculum materials.

UNIT I: ESTABLISHING AN ORCHAPD ACCOUNTING SYSTEM

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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

I. Lesson 1: The Importance of Record Keeping In Meeting Business and Family Goals

A. Review

Since this is the first lesson, spend the review time presenting an overview of the Orchard Business Management Course. Use TM/HO-I/1/1 to ensure enrollees have an understanding of the unit contents, course organization, classroom meeting times and on-the-farm requirements. Pass out HO-I/1/2 and have enrollees fill out the information on HO-I/1/2 in class, this will be used to schedule on the site meetings.

Briefly discuss with enrollees that all records they share with the instructor will be kept completely confidential.

Allow time to address enrollees questions on the organization and content of the course. Use TM/HO-I/1/1 to aid in this discussion.

B. Objective

To understand the importance of good record keeping in achieving business and family goals.

C. Motivation

1. Everyone sets goals throughout their life. Some goals relate to the business while others relate to personal or family life. Some goals are more important than others or put another way there are $10 goals and $10,000 goals. It is important to keep in mind the overall importance of goals and deal with them accordingly.
2. Goals and good records work together. Records are like a map designed to help us travel to our goals. However no road map will get us anywhere until we've established our destination.

D. Key Questions

1. What are some guidelines which will assist in setting business and family goals?
2. How can record keeping help achieve business and family goals.
3. What are the external and internal reasons for keeping records?
4. What records are needed?
5. What are some general suggestions for starting a record keeping system?

E. Introduction of Information

Ask for a show of hands of all enrollees who in the past year have sat down with their families and written down the things they wanted to attain in the next 12 months.

1. What are some guidelines that will assist in setting business and family goals?
    a. Goals are not established or achieved for us. We must set them and make them happen.
    b. One of the most valuable uses of time is to establish a set of short, intermediate and long term goals to assist in making sound decisions.
    c. Clarifying ideas as to what "we want" is the first step in improving both the orchard operation and family living.
    d. Goals are as varied as the individuals who choose them.
        1) Each family, and member within that family have some ideas of their objectives in terms of "absolute needs," "desirable needs" and "nice to have wants." TM/HO-I/1/3
        2) However there has often been inadequate communication between family members in identifying common goals, their priorities, and how and when they are to be accomplished.
    e. Pass out TM/HO-I/4/4 and I/1/5 and ask class members to take time, at home, to fill out this business/family goal account for their personal reference.
        1) These pages are an outline for your convenience.

2) These are a kind of "goal bin" with some labelled compartments in which to sort and arrange family ideas.

3) If all labels don't fit specific needs change to meet your needs.

f. Use TM-I/1/6 to aid in discussing guidelines to bear in mind when establishing goals.

1) All family members should have input with the realization that compromises will be necessary.

2) It is important to establish both business and family (personal) goals bearing in mind again, compromises will be necessary.

3) Goals should be realistic.

4) Goals should be examined and modified over time.

2. How can record keeping help achieve business and family goals?

Ask students what factors will make goals a reality. Write their ideas on the board or overhead. Relate their ideas to the following facts.

a. Most tangible goals mature on dollars. These goals, without money to nurture them are seldom achieved.

1) There are many fancy names for money planning such as "complete budgets," "partial budgets" or "cash flow projections."

2) They all boil down to the same thing, If ideas are to succeed money must be there when needed.

b. For dollars to be there when needed, good planning must be used.

1) Records provide the historical facts to analyze where we've been.

2) Records also provide a basis to determine where we're going.

3) In other words, good records are like sights on a rifle, they put us on target. Without them it is mostly point and hope.

c. A system of record keeping aids in defining objectives and planning to meet those objectives.

3. What are the external and internal reasons for keeping good records?

Use TM-I/1/7 to discuss reasons for keeping good records.

a. External reasons are reasons that effect decisions as a result of relations with others and these include:

1) Correct and defensible income tax reporting.

a) The "pain" associated with IRS Income Tax reporting and audits is directly related to the lack of adequate records.

b) Orchardists with adequate records find it much simpler to complete tax returns and defend them in case of an audit.

2) Income tax management.

a) Adequate and accurate records are not only needed to determine the tax due, but are important in avoiding overpayment.

b) Good records will assist in planning year end management techniques to level income and increase larger after tax income.

3) Hired Labor regulations.

a) Deposits and payments for Federal Income Tax withholding, Social Security taxes, FUTA, State Workers Compensation, and State Unemployment Insurance are increasingly more complex and require very accurate record keeping to avoid costly penalties.

b) Under the 1986 immigration bill accurate records for all orchard workers must be maintained.

4) Good credit relations.

a) The vast majority of orchardists business are dependent on credit.

b) With the increase in defaults on loans lenders are placing more and more emphasis on good records.

c) Many lenders now require a statement of net worth, profit and loss and projected cash flow statements of prospective borrowers.

d) In the 80's the difference between receiving or being denied credit may be based on sound, accurate records.

5) Sound credit planning.

a) Orchardists need adequate records to develop a reasonably accurate cash flow which will identify credit needs and repayment capacity.

b) Knowing when you will need additional support in the form of credit could save your business.

6) Estate planning or organizing the business for the intent of making a smooth transition of the operation to succeeding generations.

7) Partnerships, corporations and landlord/tenant relationships stay afloat on the basis of adequate records.

b. Internal reasons for maintaining records are directly related to the primary goal of any business - making a profit. These reasons include:

1) Identifying strong and weak points of the business. Records assist in answering important questions such as:

a) Is the size of an operation adequate?

b) Which phases of the business should be expanded?

c) Which phases of the business are expendable?

d) Are the costs of the operation under control?

e) Have students answer some of these questions and add what documents would substantiate these answers.

2) Planning business changes.

a) An active profitable business should not become stagnant.

        b) Changes will occur both intrinsically and extrinsically. Intrinsic changes include changes in family goals, increases in family members. Extrinsic include those as a result of the dynamics of the tree fruit industry such as new varieties, cultural practices, marketing options, etc.

    3) Operation and control of the business.

        a) Last year's records can be used to evaluate this year's accomplishments and this year's records can help set goals for next year's operation.

        b) Comparisons over time allow recognition of declining trends before they reach catastrophic proportions thus allowing for corrective measures to be taken.

        c) Good records then allow evaluation of corrective measures to see how their implementation has worked.

4. What records are needed?

Use transparency masters of the Orchard Business Management Record Book to show examples of the records needed in a complete record book. Allow students to compare this system with their current record keeping system.

a. Overall, the Orchard Business Management Record Book is a columnar type bookkeeping system, not double entry. Entries are listed a minimum of 2 times to provide a check for accuracy.

b. Receipts and expenditures are the backbone of the record book and relate to all other forms in the book. They are necessary for:

    1) Income tax purposes.

    2) Business analysis.

    3) Management decision making.

c. The payroll section is extremely important not only for keeping day to day labor records needed for paying employees but also for paying employment taxes, and completing necessary state and federal employment forms.

    1) The cost of labor, for most operations is the largest production cost in the orchard operation.

  2) Analysis of these costs at the end of the year is essential for planning and maintaining the health of the orchard operation.

d. Enterprise costs should be broken out and recorded for the end of the year analysis.

  1) Many costs such as pesticides, fertilizer and labor can be assigned to specific enterprises.

  2) Other "overhead" costs should be kept in an "overhead" enterprise from which they can be allocated to specific enterprises from end of the year totals.

e. Depreciation schedules and/or inventories should be maintained for orchard land, trees, machinery and equipment, buildings, and stored crops. They are essential to a good record keeping system for income tax and business analysis purposes.

f. Orchard map and enterprise allocation.

  1) A detailed orchard map is essential for planning and analysis of the orchard operation.

  2) Enterprise designations may be obtained from the farm map and are broken down by the choices of commodity, variety, age, rootstock and/or cultural practices.

g. Credit and lease arrangements.

  1) It is important to have a record of outstanding loans and revolving credit accounts.

    a) These records should include terms of the loan and the amortization of interest and principal paid.

    b) Short term loans should include the balance available and draws on that balance.

    c) Both the repayment schedule and repayment record should be included on long term loans.

  2) Lease arrangements should be recorded yearly and include specifics of that arrangement as well as the payments to the landlord and date of that payment.

h. Family living records should be maintained and are as important as business records in establishing and maintaining goals. These records should be kept separate from the business record.

i. A summary section which would include a cash flow summary, financial statement and profit and loss statement will aid in analyzing the yearly health of the operation.

j. Cultural records often do not give direct financial information but are no less important to the financial success of the operation.

  1) Cultural records give historic information to base future timing of cultural practices.

  2) They allow for an analysis of practices compared to profits from year to year.

  3) They allow for calculating practices within a year.

5. What are some suggestions for maintaining a record keeping system?

Use TM-I/1/8 to guide the discussion of suggestions in maintaining a record keeping system.

a. Set up an office in the home or shop in which to maintain records.

b. Enter receipts and expenditures daily or weekly. This distributes the record keeping work load and helps keep records up to date.

c. Establish who in the operation will be responsible for maintaining records. Record keeping may be simplified if one individual maintains those records. Good communication will help in getting the records from field to office.

d. Setting up a filing system is an essential backup to your record book.

  1) Files may be designated by month with one for receipts and one for bills each month. A quick look at the record book can direct to the month of the item in question.

  2) Remember to box receipts, bills and cancelled checks after closing out the record book and computing taxes.

    a) These should be stored safely for future reference.

        b) The IRS requires you save these documents for years to assist them in audits.

e. Use one method for making entries. There are several different ways of recording entries and this will relate to your method of reporting income taxes. Choose one method and stick to it!

    1) Accrual method involves recording receipts when the crops are produced and expenditures when they are incurred.

        a) The use of inventories is important for accrual accounting in establishing tax liability from year to year.

        b) The end of the month cash flow summary will not necessarily reflect the bank balance.

    2) Cash method accounting entries for crop receipts are made when the cash is received and expenses are entered when payment is made.

        a) If a lump sum payment for different items such as pesticides, fertilizer or other products is made it should be divided to enter properly.

        b) Often sheds and distributors will break down that information on the invoice.

f. Maintain two bank accounts. Bookkeeping will be more accurate with two accounts, one for the orchard business and one for the family.

g. Pay by check whenever possible. If transactions are paid by check there is a written receipt to verify the transaction.

h. Use an adding machine with tape. This removes much of the drudgery with record keeping and it is much easier to check figures with a machine that provides a printout.

i. Keep records in a safe place. Records should be stored in a fireproof metal container or safe.

j. Paper clip the currently used form to the section with the section tape for receipts and expenditures. For payroll and enterprise expenses paper clip all forms completely to the section tab.

k. Use a sharp lead pencil. This will help keep records legible and allow erasures. Records will be of little use if they cannot be read easily.

F. Group Discussion

Sufficient time should be allotted to allow enrollees to ask general questions about the Orchard Business Management Course and the use of the Orchard Business Management Record Book.

G. Conclusions

1. Establishing a realistic set of business and family goals is the first step in making sound decisions.
2. Records are like a road map designed to help travelers achieve goals.
3. Most tangible goals mature on dollars.
4. Accurate records are a must for reporting income tax and assisting in tax management.
5. Accurate records are required for payroll taxes and immigration and naturalization regulations.
6. Thorough records are a great aid in obtaining credit for the orchard operation
7. Complete records will aid an orchardist in evaluating the profitability of the operation as well as individual enterprises.
8. Complete records are necessary for making an analysis of the orchard business by determining strong and weak points followed by planning changes for the future.
9. It is important to develop your personal record keeping procedure. This includes a regular time for making entries, using a suitable filing system for receipts and bills and using a consistent method recording entries.

H. Orchard Visit.

When visiting enrollees following this lesson you may wish to discuss their short and long range business goals. The better you understand their goals the better prepared you will be to serve their needs. If an established office area does not exist be prepared to include a discussion of office location, adding machines, etc..

I. Materials Needed.

Instructor/Enrollees:

TM/HO-I/1/1	Overview of the Orchard Business Management Course of Study
TM/HO-I/1/2	Enrollee Information Sheet
TM/HO-I/1/3	What Does Your Family Want?
TM/HO-I/1/4	Family/Business Goal Worksheets
TM/HO-I/1/5	Rate Your Goals
TM/HO-I/1/6	Points in Goal Setting
TM-I/1/7	External and Internal Reasons for Keeping Records
TM-I/1/8	Guidelines for Keeping Records

TM/HO-I/1/1

COURSE CONTENTS - UNIT I
ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

Lesson 1: The Importance of Record Keeping in Meeting Business and Family Goals

Lesson 2: Recording Receipts and Expenditures

Lesson 3: Maintaining Payroll Records

Lesson 4: Developing an Orchard Map and Land Inventory

Lesson 5: Developing and Maintaining Enterprise Records

Lesson 6: Developing a Tree Capitalization and Depreciation Schedule for Orchard Trees

Lesson 7: Developing and Maintaining a Depreciation Schedule/Inventory for Machinery, Equipment, and Buildings

Lesson 8: Maintaining a Record of Stored Crops

Lesson 9: Recording Credit Sources

Lesson 10: Establishing and Maintaining Family Living Records

Lesson 11: Planning the Years Cash Flow

Lesson 12: Preparing the Years Financial Statement

Lesson 13: Preparing the Years Profit and Loss Statement

Lesson 14: Maintaining Cultural Records

TM/HO-I/1/1

COURSE CONTENTS - UNIT II
MANAGEMENT AND ANALYSIS OF THE ORCHARD OPERATION

Lesson 1: Economic Principles Important to Orchard Business Management

Lesson 2: Analyzing Enterprise Returns To Costs

Lesson 3: Income Tax Management Techniques

Lesson 4: Closing the Record Book for Analysis

Lesson 5: Using the Concepts of Time Value of Money

Lesson 6: Utilizing Farm Credit

Lesson 7: Planning Partial Budgets Using Packout Records

Lesson 8: Determining the Economic Feasibility of Replanting Orchards

Lesson 9: Marketing Washington Fruit

Lesson 10: Labor Management Techniques

Lesson 11: Organizing the Orchard Business

Lesson 12: Estate Planning

Lesson 13: Options for Computerized Record Keeping

I/1/2

ENROLLEE INFOMATION SHEET

NAME: ______________________________

ADDRESS: ______________________________

DIRECTIONS TO ORCHARD(S): ______________________________

____

____

BEST TIMES FOR ORCHARD VISITS: ______________________________

WHAT AREAS OF BUSINESS MANAGEMENT ARE OF PARTICULAR CONCERN ?

____

NUMBER OF YEARS ORCHARDING: ________ NUMBER OF ACRES: ________

COMMODITIES: ______________________________

____

____

____

CURRENT RECORD KEEPING SYSTEM: ______________________________

"WHAT DOES YOUR FAMILY WANT?"

DREAMS? IDEAS? GOALS? ACTION?

WHAT DOES YOUR FAMILY WANT?

Clarifying our ideas as to what we really want is one of the first steps in improving both family living and the farm business. Each family has some idea of its objectives in terms of "absolute necessities", "desirable needs", and "nice-to-have-wants". Too often, however, there has not been adequate communication between family members in identifying common goals, their priorities, and how and when they are to be accomplished.

CONSTRUCTIVE ACTION USUALLY FOLLOWS POSITIVE THINKING.

The following pages are an outline for your convenience. Consider them a kind of "goal bin", with some labeled compartments in which to sort out and arrange family ideas. If all the labels don't fit, substitute your own. Get everyone into the act. Some ideas should have attention now; others should wait; some may be only pipe-dreams. Place a priority rating on as many as possible.

WHEN IDEAS GET "RIPE, THEY BECOME GOALS.

Merely making a long list of ideas, and filing them away, is like planting a garden and going on vacation for the summer. The weeds will out-do the seeds. It's hard to over-cultivate a good idea. The list should be reviewed as often as possible, and should get a thorough "plowing" at least once a year.

MOST GOALS GROW AND MATURE ON DOLLARS.

Tangible goals without money to feed on seldom yield very much. There are many fancy names for money planning, such as "complete budgets", "partial budgets", and "cash-flow projections". They all boil down to the same thing; if ideas are to succeed, money must be planned for ahead of time, and be there when needed. Credit is normally the pivot-point of business money planning. If wisely used, its financial leverage can put ideas into action; if abused, it will transform yesterday's dreams into tomorrow's nightmares.

WHERE DOES RECORD KEEPING FIT IN?

Setting goals is one thing, getting there is another. Good records are like sights on a rifle. Properly used, they put us on target; without them, it's mostly point and hope. We need a system of record keeping with defined objectives, and planned use. That is what this course is all about. It needs your understanding, your planning, and your practical application. Plan well, the farm you save may be your own.

FAMILY GOALS

	SHORT TERM	INTERMEDIATE TERM	LONG TERM
HOME			
DEVELOPMENT OF FAMILY MEMBERS			
SOCIAL AND RECREATION			
COMMUNITY INVOLVEMENT			
OTHER			

TM/HO-I/1/4

FAMILY GOALS

	SHORT TERM	INTERMEDIATE TERM	LONG TERM

TM/HO-I/1/4

FARM BUSINESS GOALS

	SHORT TERM	INTERMEDIATE TERM	LONG TERM

TM/HO-I/1/4

FARM BUSINESS GOALS

	SHORT TERM	INTERMEDIATE TERM	LONG TERM

TM/HO-I/1/4

FARM BUSINESS GOALS

	SHORT TERM	INTERMEDIATE TERM	LONG TERM
NET INCOME			
SIZE OF FARM A. ACRES B. SALES C. INVESTMENT			
FINANCIAL SECURITY A. SAVINGS B. PERCENT EQUITY			
OTHER			

TM/HO-I/1/5

RATE YOUR GOALS

Rate the following goals in terms of their importance to you. List number 1 after the goal that is most important, etc.

1. To provide more leisure time to engage in hobbies, to enjoy good friends, and for self improvement. ________
2. To provide an attractive, comfortable, and efficient home to meet family needs and happiness. ________
3. To provide the needs of a job or business operation with modern tools, equipment or buildings before improving the home. ________
4. To provide economic security (to be reasonably certain of insuring an income adequate for family needs). ________
5. To provide for the needs of the home, using credit and other income before improving the business operation or job needs. ________
6. To provide financially for good educational opportunities for the children. ________
7. To enjoy good health. ________
8. To provide as much income as possible from a business operation or employment. ________
9. To provide income levels from work which will enable continued enjoyment of its freedom and independence. ________
10. To help plan and use influence in guiding policies and activities in the city and the county for worthwhile purposes. ________

List 5 specific things you wish to accomplish in the next couple of years.

1. ____
2. ____
3. ____
4. ____
5. ____

Name ____

TM-I/1/6

POINTS IN SETTING GOALS

- ALL FAMILY MEMBERS SHOULD HAVE INPUT
- COMPROMISES MAY BE NECESSARY BETWEEN FAMILY AND BUSINESS GOALS
- INTERACTION BETWEEN LONG AND SHORT TERM GOALS WILL OCCUR
- GOALS SHOULD BE REALISTIC
- COMPETITION WILL EXIST BETWEEN GOALS
- GOALS SHOULD BE EXAMINED AND MODIFIED OVER TIME

EXTERNAL AND INTERNAL REASONS FOR KEEPING GOOD RECORDS

EXTERNAL REASONS

- * CORRECT AND DEFENSIBLE INCOME TAX REPORTING
- * INCOME TAX MANAGEMENT
- * HIRED LABOR REGULATIONS
- * GOOD CREDIT RELATIONS
- * SOUND CREDIT PLANNING
- * ESTATE PLANNING
- * PARTNERSHIP/CORPORATE AND LANDLORD/TENANT RELATIONS

INTERNAL REASONS

- * IDENTIFYING STRONG AND WEAK POINTS OF THE BUSINESS
- * PLANNING BUSINESS CHANGES
- * OPERATION AND CONTROL OF THE BUSINESS

GENERAL GUIDELINES FOR KEEPING RECORDS

- ESTABLISH AN OFFICE IN THE HOME OR SHOP TO MAINTAIN RECORDS
- ENTER RECEIPTS AND EXPENDITURES DAILY OR WEEKLY
- ESTABLISH ONE INDIVIDUAL IN THE OPERATION TO MAINTAIN RECORDS
- SET UP A FILING SYSTEM TO BACKUP YOUR RECORD BOOK
- CHOOSE ONE METHOD FOR MAKING ENTRIES
- MAINTAIN TWO BANK ACCOUNTS
- PAY BY CHECK
- USE AN ADDING MACHINE WITH TAPE
- STORE RECORDS IN A FIREPROOF BOX OR SAFE

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

II. Lesson 2: Recording Receipts and Expenditures

A. Review

The previous lesson, The Importance of Keeping Records in Meeting Business and Family Goals, should be reviewed. List all conclusions reached in the last meeting on the board or overhead projector. Possible conclusions might include:

1. Accurate records are a must for filing income tax reports and assisting in tax management.
2. Accurate records are required for payroll taxes and immigration and naturalization regulations.
3. Thorough records are a great aid in obtaining credit for the orchard operation.
4. Complete records will aid an orchardist in evaluating the profitability of the operation as well as individual enterprises.
5. Complete records are necessary for making an analysis of the orchard business by determining strong and weak points.
6. It is important to develop your personal record keeping procedure. This includes a regular time for making entries, using a suitable filing system for receipts and bills, and using a consistent method of recording entries.

B. Objective

To correctly enter receipts and expenditures and develop a summary of yearly receipts and expenditures which can be utilized in developing a summary cash flow.

C. Motivation

1. Relate the story of the orchardist who put all his bills in empty boot boxes. At the end of the year the boxes were loaded up and taken to his accountant, who was given the unpleasant task of sorting and consolidating those records for income tax purposes. The orchardist measured his volume of business by the number of boot boxes he took to his accountant. Likewise he found a geometric ratio between the

number of boot boxes and his accountant's bill which accompanied his completed tax form.

2. Point out the problem with this method of record keeping as one of needing a system for sorting and recording receipts and expenditures.

3. Classifying receipts and expenditures is the foundation of a record keeping system. Most problems incurred in the summary and analysis of records are a result of errors in recording receipts and expenditures.

D. Key Questions

1. What are the guidelines for recording operating receipts and capital receipts?

2. How are receipt entries checked for accuracy and transferred to the cash flow summary?

3. What are the guidelines for recording operating and capital expenditures?

4. How are expenditures checked for accuracy and transferred to the cash flow summary?

E. Introduction of Information

Begin by pointing out that most of the lesson time will be spent practicing recording receipts and expenditures. The practice entries are designed to demonstrate examples of common buying and selling situations encountered by orchardists.

1. How are operating and capital receipts recorded?

   Have enrollees turn to Forms 1A and 1B in the Orchard Business Management Record Book and follow along as the components of these forms are explained. Following this description make entries from the Sample Entries handout TM/HO-I/2/1 onto the transparencies of Form 1. Pass out copies of TM/HO-I/2/1 and have enrollees record sample receipts in their record books.

   a. Receipts include all income coming into the orchard business. Entries are recorded twice, once in the Total Receipt column and then in the appropriate category column, for the purpose of tax treatment and analysis of the business.

   b. At the top of each page enter the month(s), page number and the year.

c. At the start of each new page enter the enterprise headings (numbers), or combination of headings (numbers) on Form 1, columns 16-31.

d. Enter the Date Received and Date of Deposit in column 1 and 2.

e. Enter the Total Received in column 3 and a brief description of the transaction, if desired, in column 4.

f. Enter the Total Receipt again, or a breakdown of that total in the appropriate receipt category or categories.

g. Columns E-K.

  1) Custom work (5) includes receipt of cash, or fair market value of items given as payment for orchard work done on other's orchard operation. An assumption is made that your orchard equipment and you or your manager's labor are a part of the orchard operation. When that labor and machinery is hired out the receipts become a part of the orchard business.

  2) Co-op Patronage Dividends/Refunds (6 and 7) may be given in the form of cash or in the form of equity. For tax purposes, even that amount retained (equity) must be reported. Only the cash amounts (6) are transferred to the cash flow summary. Equity stock and retains should be recorded on the accounts receivable page as well.

  3) Capital Sales (8) are receipts from the sale of capital items such as machinery, equipment, buildings and land. Remember to mark any capital items sold from the appropriate Inventory or Depreciation schedule (Forms 11, 12, 13, 14) where that item is recorded.

  4) Interest (9) includes interest earned on orchard savings and checking accounts as well as interest from orchard business investments.

  5) Borrowed Funds (10) is a receipt to the orchard operation. Enter the Net Borrowed from either form 17 or 18. If loans were made from Cooperative lenders enter the stock purchased (Gross borrowed - net borrowed) in the accounts receivable page.

  6) Accrual Adjustment (11) is only used when the accrual method of accounting is used for income tax purposes. This adjustment is the difference of the estimated crop receipt

and actual returns for the previous year. This amount is taken form Form 15 (Crop Inventory). The amount may be a positive or negative number.

h. Columns 12-15 are open categories designed to enable orchardists to customize these forms to meet the specific needs of the operation.

  1) If non-farm income is used in the orchard operation, enter that heading in one of the open categories.

  2) Keep the open categories consistent throughout the receipt pages for a given year.

i. Crop Receipts (16-31) may be recorded in various ways. One of two suggested methods includes:

  1) Enter the gross crop receipt from the shed in the Total Receipt column and the actual check amount (net return) in the Item Description column.

    a) Distribute the gross receipt among the appropriate enterprise columns.

    b) Enter the warehouse charges on Form 2, columns 23-25. Don't forget to break down by enterprise number.

  2) Record the net returns from the shed in the Total Receipt column.

    a) Distribute the net receipt among the appropriate enterprise.

    b) Warehouse charges may be entered on Form 2 as a matter of reference but they should not be added to the Total Cost column and not added into total production expenses on the summary forms (24-26).

  3) With either method remember to keep the enterprise number or combination of numbers consistent throughout all receipt forms for the year.

2. How are receipt entries checked for accuracy and transferred to the cash flow summary?

Using the entries made for TM/HO-I/2/1 on TM-1 demonstrate how receipts are checked for accuracy. Use the Cash Flow Summary, Form 25 on the overhead to transfer monthly totals. Have students copy totals to Form 2 to 25.

a. For most orchardists each page of form 1 should include receipts for more than one month.

b. At the end of a given month total all columns and write those monthly totals in red. (Drawing a line before making the next month's entries can prove helpful.)

c. The sum of the totals for columns 5-31 of Form 1 should be equal to the total for column 3 of Form 1. If these amounts are not equal, scan the page.

  1) Look to make sure the entries in Total Receipts is also entered in one or more of the category columns.

  2) Check to make sure breakdowns of the Total Receipt into multiple category columns add up to the total Receipt of that line.

d. If one month carries over between 2 pages, enter the subtotal (for the month) onto line one of the next page. (It may be helpful to write subtotals in a colored pencil other than red.)

e. Transfer the monthly totals for columns 5, 6, 8, 9, 10, 11 (Form 1) onto lines 17-21 respectively of the cash flow summary (Form 24).

f. Include the sum of the totals of columns 12-15 (Form 1) on line 22 of the cash flow summary (Form 25).

g. Include the appropriate enterprise number or numbers from columns 16-31 (Form 1) on lines 1 - 16 of the cash flow summary (Form 24).

h. Transfer the totals for columns 16-31 (Form 1) to the appropriate month of lines 1 -16 of the cash flow summary (Form 24).

3. What are the guidelines for recording operating and capital expenditures?

Have enrollees turn to Form 2 in the Orchard Business Management Record Book and follow along as the components of these forms are explained. Following this description make entries from the Sample Expenditures handout onto the transparencies of TM/HO-I/2/2 and Form 2. Pass out copies of TM/HO-I/2/2 to enrollees and have them record sample expenditures onto Form 2 of their record books.

a. Expenditures include all funds going out of the orchard business. Entries are recorded twice on the form, once in the Total Cost column and again into the appropriate cost category for the purpose of tax treatment and analysis of the business.

b. At the top of each page enter the month(s), page number and year.

c. At the start of each page write in the headings for columns 25 through 29. The same headings should be written for all pages of Form 2 for the year.

d. Enter the date of the transaction and the check number (if a check was used to make payment) in columns 1 and 2 respectively.

e. Enter the total cost of the item on column 3.

f. Enter the appropriate enterprise number in column 4. Assignment of enterprise numbers will be explained in lesson 4 with the aid of forms 8 and 9.

g. Write a brief description of the transaction in column 5. This description might include vendor name, employee name, quantities, etc..

h. Enter the total cost or a breakdown of that total cost into the appropriate cost category column(s).

i. Hired labor (6-10) are entered from Payroll Forms 4, 5, 6, and 7.

   1) Net Wages (6) are entered from the Payroll Form (4) column 34 (Net Pay) or Form 5 column 19 (Net Pay).

   2) Column 7 (FICA/Fed. Inc. Tax w/hold) (Deposited Taxes) are entered from the Federal Tax Deposit Schedule (Form 6) when the taxes are deposited or paid.

   3) Column 8 (State Unemploy./FUTA) are taken from Form 7 Columns 4 and 5 when the tax is paid.

   4) Column 9 (State Workers Compensation) is entered from Form 7 column 6 when tax check is due.

   5) Column 10 (Housing/Misc.) is taken from Form 4 column 40 or Form 5 column 15 if employer pays housing.

j. For cash accounting purposes, items such as pesticides, fertilizer, lime, fuel and some equipment which is purchased on account through the warehouse, may not be recorded until payment is made on that account.

1) Enter the total amount paid and breakdown that amount into the appropriate cost categories.

2) If the breakdown of the total includes items accountable to different enterprises use several lines to itemize the total payment.

k. For accrual accounting purposes items purchased through the warehouse on account should be recorded when they are purchased.

l. For expenditures such as utilities, fuel/oil and truck/auto where payments may be split between orchard operation and family living, one of 2 methods might be used.

1) Enter the total payment each month and at the end of the year subtract the necessary percentage used for family living. (Remember to make adjustments on Forms 23-26.)

2) Enter the % used in the orchard operation on Form 2 and that used for family living on Form 21 when payment is made.

m. Replace Trees (17) refers to replacement trees within established blocks and are a tax deductible expense in the year planted or paid for.

n. Warehouse Expenses (23-25) may be handled in one of 2 ways depending on how warehouse receipts are handled.

1) If gross crop receipt is entered on Form 1 enter the warehouse charges here. Remember to breakdown those charges into the appropriate enterprises.

2) If net crop receipts are entered on Form 1, Warehouse charges may be entered on Form 2 as a matter of reference but should not be entered in the total cost column.

o. Columns 26-29 are open columns designed to customize this form for specific operations. The headings for these open columns should remain consistent throughout all pages for a given year.

p. Trees/Capitalized Production Expenses (30) refers to trees and to expenses which are capitalized.

1) Trees would include both those purchased and planted as new blocks and established trees newly purchased.

2) These amounts should also be recorded on Forms 11.

q. Depreciable Capital Purchases (31) includes all machinery, equipment, buildings and land improvements which are depreciated. These items should also be entered on the appropriate depreciation schedule Forms 12, 13, and 14.

r. Non-Depreciable Capital Purchases (31) includes nondepreciable capital purchases such as land.

s. If credit is used in the purchase of a depreciable or nondepreciable item such as a tractor, the total paid including the cash and money borrowed is entered on Form 2. Make sure the amount borrowed is entered on Form 1, column 10 (Money Borrowed).

t. Column 33-35 Principal Paid, enter repayments of principal on borrowed funds. The interest portion must be entered on the Interest column (22). Also make entry of repayments on:

   1) Form 17 (Production Loan Record).

   2) Form 18 (Intermediate and Long Term Loans).

u. If the Orchard operator or family member takes a regular wage from the operation, enter under hired labor or as a special category in one of the open categories.

4. How are expense entries checked for accuracy and transferred to the cash flow summary?

Using entries made from TM/HO-I/2/2 on TM-2 demonstrate how expenditures are checked for accuracy. Use the Cash Flow Summary, TM-25 on the overhead to transfer monthly totals. Have students use their copies of Form 25 to transfer their totals from Form 2.

a. For most orchardists one page of Form 2 will contain a months expenditures. If months are split between 2 pages enter the subtotal for the month onto line 1 of the next page. (It may prove helpful to write the subtotals in a colored pencil other than red.)

b. At the end of each month total each column and write that total in red. (If more than one month's totals are included on a page it may prove helpful to skip a line between months.)

c. The sum of the monthly totals for columns 6-35 of Form 2 should be equal to the total for the Total Cost Column (3) of Form 2. If these amounts are not equal scan the page.

   1) Look to make sure all entries in Total Receipts are entered in one or more of the category columns.

2) Check to make sure breakdowns of the Total Cost into multiple category columns add up to the total cost of that line.

d. Transfer the monthly totals for columns 6-35 of Form 2 onto the corresponding lines 24 - 53 of the Cash Flow Summary (Form 24).

1) Remember to write in the titles for the open categories on lines 44-47.

2) Do not add in Warehouse Charges if Net returns are entered from crop sales on Form 1.

f. If no account of an operators salary from the operation is made on Form 1 in an open category enter an estimate on line 54 of the Cash Flow Summary.

F. Group Discussion

Sufficient time should be allotted for enrollees to ask question and discuss other types of entries not illustrated in the sample entries. Many will want to make comparisons between the Orchard Business Management Record Book and the one they are currently using. Be sure the discussion period enables orchardists to be confident they are

G. Conclusions

Conclusions which may be reached include:

1. Receipts and expenditures are the backbone of the orchard business record system.
2. Receipt entries are made twice on the Sources of Receipts (Form 1).
3. Expenditure entries are also made twice on the Distribution of Expenditures (Form 2).
4. Flexibility on the use of the receipt and expenditure form is provided by open categories.
5. An accuracy Check should be made at the end of each month.
6. Monthly totals should be written in red.
7. Monthly totals should be transferred to the Cash Flow Summary (Form 24) at the end of every month.

8. Line C of Form 24 should agree with the checkbook if the cash method of accounting is used.

H. Orchard Visit

When visiting enrollees following lesson 3, be sure that the receipts, expenditures and cash flow summary are current and recorded correctly. If records are not current use your time in assisting in completing them. This would also be a good time to take a brief tour of the orchard operation.

I. Materials Needed

Instructor

Orchard Business Management Record Book

TM-II/2/1	Orchard Receipt Example
TM-II/2/2	Orchard Expenditure Example
TM-1	Form 1 Sources of Receipts
TM-2	Form 2 Distribution of Expenditures

Enrollees

Orchard Business Management Record Book

HO-1	Sources of Receipts
HO-2	Distribution of Expenditures
HO-24	Cash Flow Summary
HO-II/2/1	Sample Orchard Receipts
HO-II/2/2	Sample Orchard Expenditures

TM/HO-I/2/1

RECEIPT ENTRIES FOR THE SAMPLE ORCHARD

Include the following entries for the months of January through October on the Sources of Receipts--Form 2.

DATE REC.	DATE DEPO.	TOTAL RECEIPTS	DESCRIPTION
			JANUARY
1/15	1/15	5,200.00	D'Anjou Adv.--Grower Return=$3,083
1/20	1/20	9,600.00	Org.Spur Adv.--Grower Return=$6,000
1/20	1/20	5,600.00	Spur Gold Adv.-Grower Return=$3,360
1/25	1/25	104.00	BANK ACCOUNT INTEREST
			FEBRUARY
2/15	2/20	5,200.00	D'Anjou Adv.--Grower Return=$3,356.03
2/20	2/20	11,955.00	Org.Spur Adv.--Grower Return=$7,472.87
2/25	2/25	242.95	BANK ACCOUNT INTEREST
			MARCH
3/15	3/15	4,500.00	D'Anjou Adv.--Grower Return=$2,904.25
3/20	3/20	12,535.00	Org.Spur Adv.--Grower Return=$7,834.38
3/20	3/20	14,325.00	Spur Gold Adv.--Actual Depo.=$8,595
3/25	3/25	250.16	BANK ACCOUNT INTEREST
			APRIL
4/15	4/20	7,755.00	D'Anjou--Grower Return=$5,005
4/20	4/20	17,565.00	Org.Spur Adv.--Grower Return=$10,978.13
4/20	4/20	5,500.00	Spur Gold Final--Grower Return=$3,300
4/25	4/25	280.16	BANK ACCOUNT INTEREST
4/30	4/30	210.00	Tom Jones--Custom Spray @ $30/Acre
			MAY
5/15	5/15	9,555.00	D'Anjou Adv.--Grower Return=$6,166.70
5/20	5/20	14,750.00	Org.Spur--Grower Return=$9,218.75
5/25	5/25	250.00	BANK ACCOUNT INTEREST
5/30	5/30	210.00	Tom Jones--Custom Spray @ $30/Acre

TM/HO-I/2/1

RECEIPT ENTRIES FOR THE SAMPLE ORCHARD

Include the following entries for the months of January through October on the Sources of Receipts--Form 2.

DATE REC.	DATE DEPO.	TOTAL RECEIPTS	DESCRIPTION
			JUNE
6/15	6/15	17,575.00	D'Anjou Final--Grower Return=$11,342.
6/25	6/25	170.00	BANK ACCOUNT INTEREST
6/28	6/30	210.00	Tom Jones--Custom Spray @ $30/Acre
			JULY
7/1	7/1	10,000.00	Production Loan
7/25	7/25	70.00	BANK ACCOUNT INTEREST
7/25	7/25	210.00	Tom Jones--Custom Spray @ $30/Acre
			AUGUST
8/5	8/6	34,081.40	Bings Final--Grower Return=$24,853.58
8/5	8/6	8,109.00	Lamberts Final--Grower Return
8/5	8/6	3,793.00	Vans Final--Grower Return=$2.937.46
8/25	8/25	70.00	BANK ACCOUNT INTEREST
			SEPTEMBER
9/25	9/25	2,175.00	BANK ACCOUNT INTEREST
9/28	9/30	1,200.00	Sam Ernst--Sold 4-Wheeler
			OCTOBER
10/25	10/25	1,150.00	Mountain Tractor--Borrowed Funds for Snowblower

FORM 1 MONTH(S) Jan / Feb./March/April

SOURCES OF RECEIPTS

PAGE 1 YEAR 88

	DATE RECEIVED	DATE OF DEPOSIT	TOTAL RECEIPT	DESCRIPTION	CUSTOM WORK	COOP PATRONAGE DIVIDENDS/REFUNDS		CAPITAL SALES	INTEREST	BORROWED FUNDS	ACCRUAL ADJUSTMENT	OTHER RECEIPTS				
						$	EQUITY									
1	1/15	1/15	5200 00	Anjou Advance - Actual Depo $3083												1
2	1/20	1/20	9600 00	Org Spur Adv. - Actual Depo $6000												2
3	1/20	1/20	5600 00	Spur Gold Adv. - Actual Depo $3360												3
4	1/25	1/25	104 00	Bank Account Interest					206 00							4
5			20504 00						206 00							5
6																6
7																7
8	2/15	2/20	5200 00	Anjou Adv. - Actual Depo $3356.03												8
9	2/20	2/20	11955 00	Org. Spur Adv. - Actual Depo. $7472.87												9
10	2/25	2/25	242 95	Bank Account Interest					242 95							10
11			17397 95													11
12																12
13																13
14	3/15	3/15	4500 00	Anjou Adv. - Actual Depo $2904.25												14
15	3/20	3/20	12535 00	Org Spur Adv. - Actual Depo $7834.38												15
16	3/20	3/20	14325 00	Spur Gold - Actual Depo $8595.00												16
17	3/25	3/25	250 16	Bank Account Interest					250 16							17
18			31610 16													18
19																19
20	4/15	4/20	7755 00	Anjou Adv. - Actual Depo $5005												20
21	4/20	4/20	17565 70	Org Spur Adv. - Actual Depo $10978.13												21
22	4/20	4/20	5500 00	Spur Gold Final - Actual Depo. $3300												22
23	4/25	4/25	280 16	Bank Account Interest					280 16							23
24	4/30	4/20	210 00	Tom Jones - Custom Spray @ $[illegible]/A	210 00											24
25			31210 16													25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

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FORM 1 MONTH(S) Jan/Feb./March/April

SOURCES OF RECEIPTS

PAGE 2 YEAR 82

CROP RECEIPTS

	ENT. #(S): 121	ENT. #(S): 122	ENT. #(S): 211	ENT. #(S): 212	ENT. #(S): 313	ENT. #(S): 314	ENT. #(S): 531	ENT. #(S): 532	ENT. #(S): 533	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	
1	5200 00																1
2					9600 00												2
3						5600 00											3
4																	4
5	5200 00				9600 00	5600 00											5
6																	6
7																	7
8	5200 00																8
9					11955 00												9
10																	10
11	5200 00				11955 00												11
12																	12
13																	13
14	4500 00																14
15					12535 00												15
16						14325 00											16
17																	17
18	4500 00				12535 00	14325 00											18
19																	19
20	1755 00																20
21					17565 00	5500 00											21
22																	22
23																	23
24																	24
25	1755 00				17565 00	5500 —											25
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

FORM 1 MONTH(S) May/June/July/Aug.

SOURCES OF RECEIPTS

PAGE 3 YEAR 88

	DATE RECEIVED	DATE OF DEPOSIT	TOTAL RECEIPT	DESCRIPTION	CUSTOM WORK	COOP PATRONAGE DIVIDENDS/REFUNDS $	COOP PATRONAGE DIVIDENDS/REFUNDS EQUITY	CAPITAL SALES	INTEREST	BORROWED FUNDS	ACCRUAL ADJUSTMENT	OTHER RECEIPTS				
1	5/15	5/15	9555 00	Anjou Adv. - Actual Depo. $6146.70												1
2	5/20	5/20	14750 00	Org. Spur Adv. - Actual Depo. $7218.75												2
3	5/25	5/25	250 00	Bank Account Interest					250 00							3
4	5/30	5/30	210 00	Tom Jones - Custom Spray @ $20/A	210 00											4
5			24765 00		210 00				250 00							5
6																6
7																7
8	6/15	6/15	17575 00	Anjou Final - Actual Depo $11342.73												8
9	6/25	6/25	170 00	Bank Interest					170 00							9
10	6/28	6/28	210 00	Tom Jones - Custom Spray @ $20/A	210 00											10
11			17955 00		210 00				170 00							11
12																12
13																13
14	7/1	7/1	10,000 00	Production Loan						10,000 00						14
15	7/25	7/25	70 00	Bank Account Interest					70 00							15
16	7/25	7/25	210 00	Tom Jones - Custom Spray @ $20/A	210 00											16
17			10280 00		210 00				70 00	10,000 00						17
18																18
19																19
20	8/5	8/6	24021 40	Biggs Final - Actual Depo 24853.38												20
21	8/5	8/6	2109 00	Lamberts Final - Actual Depo. 5752.00												21
22	8/5	8/6	3192 00	Vans Final - Actual Depo. 2937.46												22
23	8/25	8/25	70 00	Bank Account					70 00							23
24	8/31	8/31	210 00	Tom Jones - Custom Spray @ $20/A	210 00											24
25					210 00				70 00							25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

FORM 1 MONTH(S) May/June/July/Aug.

SOURCES OF RECEIPTS

PAGE 4 YEAR 82

CROP RECEIPTS

	ENT. #(S): 121	ENT. #(S): 122	ENT. #(S): 211	ENT. #(S): 212	ENT. #(S): 313	ENT. #(S): 314	ENT. #(S): 531	ENT. #(S): 532	ENT. #(S): 533	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	
1	9555 00																1
2					14750 00												2
3																	3
4																	4
5	9555 00				14750 00												5
6																	6
7																	7
8	17515 00																8
9																	9
10																	10
11	17515 00																11
12																	12
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17																	17
18																	18
19																	19
20							34081 40										20
21								8109 00									21
22									3793 00								22
23																	23
24																	24
25							34081 40	8109 00	3793 00								25
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

FORM 1 MONTH(S) Sept/Oct.

SOURCES OF RECEIPTS

PAGE 5 YEAR 88

	DATE RECEIVED	DATE OF DEPOSIT	TOTAL RECEIPT	DESCRIPTION	CUSTOM WORK	COOP PATRONAGE DIVIDENDS/REFUNDS		CAPITAL SALES	INTEREST	BORROWED FUNDS	ACCRUAL ADJUSTMENT	OTHER RECEIPTS				
						$	EQUITY									
1	9/25	9/25	180 00	Bank Interest					180 00							1
2	9/28	9/30	1200 00	Sam Ernst - Sold 4 Wheeler				1200 00								2
3	9/30	9/30	3780 00	D'Anjou Harvest Adv. Depo = 3780 00												3
4	9/30	9/30	1560 00	Bartlett Harv Adv. Depo = 1560 00												4
5																5
6																6
7																7
8	10/25	10/25	1150 00	Mt. Tractor - Borrowed For Snow Blower						1150 00						8
9	10/25	10/25	2040 00	Starking Harv Adv. Depo = 2040.00												9
10	10/25	11/25	250 00	Std Gold Harv. Adv. Depo = 250.00												10
11	10/25	10/25	4800 00	[illegible] Harv. Adv. Depo = 4800.00												11
12								1200 00	180 00	1150 00						12
13																13
14																14
15																15
16																16
17																17
18																18
19																19
20																20
21																21
22																22
23																23
24																24
25																25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

FORM 1 MONTH(S) Sept./Oct.

SOURCES OF RECEIPTS

PAGE 5 YEAR 88

CROP RECEIPTS

	ENT. #(S): 121	ENT. #(S): 122	ENT. #(S): 211	ENT. #(S): 212	ENT. #(S): 313	ENT. #(S): 314	ENT. #(S): 531	ENT. #(S): 532	ENT. #(S): 533	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	
1																	1
2																	2
3	3780 00																3
4		1560 00															4
5	3780 00	1560 00															5
6																	6
7																	7
8																	8
9			2010 00														9
10				250 00													10
11					4800 00												11
12			2010 00	250 00	4800 00												12
13																	13
14																	14
15																	15
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24																	24
25																	25
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

TM/HO-I/2/2

EXPENDITURES FOR A SAMPLE ORCHARD

ENTER THE FOLLOWING EXPENDITURES ON FORM 2

DATE	CHECK	TOTAL COST	ENT #	DESCRIPTION
				AUGUST
8/5	6307	9,228.02	531	WAREHOUSE CHARGES: IN CHARGE = 3,198.57 OUT CHARGE = 5,329.37 IND CHARGE = 700.08
8/5	6308	2,356.70	532	WAREHOUSE CHARGES: IN CHARGE = 821.73 OUT CHARGE = 1,355.44 IND CHARGE = 179.53
8/5	6309	855.54	533	IN CHARGE = 855.54
8/7	6310	1,243.14	0	WA BANK FICA DEPOSIT
8/7	6311	198.26	121/122	LOUIS JERRRERA
8/10	6312	677.40	0	FARM & RANCH SUPPLY
8/14	6313	198.26	211/212	LOUIS JERRERA
8/15	6314	350.00	0	VEHICLE INSURANCE
8/15	6315	54.00	0	GTE (TOTAL BILL = 88)
8/15	6316	273.00	0	PUD (JUNE/JULY)
8/15	6317	332.14	0	FORD CREDIT COMPANY, PRINCIPAL = 248.89 INTEREST = 83.25
8/20	6318	1,706.75		SUNSHINE GROWERS COOPERATIVE
			121/122	BAAM/PLICTRAN/DIATHANE = 964.00
			211,212,313	GUTHION/ROUNDUP = 732.44
			314,415	CALCIUM CLORIDE = 10.08
8/20	6319	42.50	0	CHELAN COUNTY TRAILER LICENSE

EXPENDITURES FOR A SAMPLE ORCHARD

CONTINUED

ENTER THE FOLLOWING EXPENDITURES ON FORM 2

DATE	CHECK	TOTAL COST	ENT #	DESCRIPTION
AUGUST				
8/21	6320	285.50		IRRIGATION SUPPLY COMPANY
			415	20 MICROJETS = 35.50
			121/122	50 IMPACT = 250.00
8/21	6321	198.26	121/122	LOUIS JERRERA
8/21	6322	1,500.00	0	OPERATOR/FAMILY SALARY
8/28	6323	345.76	210/212/122	LOUIS JERRERA
8/28	6324	228.02	122	JUAN RAMOS, 25 BINS
8/28	6325	251.14	122	GEORGE MARTINEZ, 25 BINS
8/28	6326	281.66	122	MIGUEL NIEVES, 28 BINS
8/28	6327	121.65	122	JACKIE JONES
8/28	6328	2,353.96	0	MOUNTAIN TRACTOR, PRINCIPAL = 1,910.53 INTEREST = 443.43
8/30	6329	5,062.99	0	PRODUCTION LOAN PAYMENT, PRINCIPAL = 4,979.66 INTEREST = 83.33
SEPTEMBER				
9/4	6332	410.86	121	LOUIS JERRERA
9/4	6333	381.38	121	JUAN RAMOS, 38 BINS
9/4	6334	381.38	121	GEORGE MARTINEZ, 38 BINS

EXPENDITURES FOR A SAMPLE ORCHARD

CONTINUED

ENTER THE FOLLOWING EXPENDITURES ON FORM 2

DATE	CHECK	TOTAL COST	ENT #	DESCRIPTION
		SEPTEMBER		
9/4	6335	350.86	121	MIGUEL NIEVES, 35 BINS
9/4	6336	350.86	121	BOB GELLER, 35 BINS
9/4	6337	432.25	121	JOHN FISHER, 43 BINS
9/4	6338	198.25	121	JACKIE JONES
9/10	6339	345.40	121	FARM & RANCH SUPPLY, GASOLINE = 320.40 MISCELLANEOUS SUPPLIES = 34.00
9/11	6340	225.88	121/122/314	LOUIS JERRERA
9/11	6341	246.15	314	JUAN RAMOS, 27 BINS
9/11	6342	218.41	314	GEORGE MARTINEZ, 24 BINS
9/11	6343	236.90	314	MIGUEL NIEVES, 26 BINS
9/11	6344	227.66	314	BOB GELLER, 25 BINS INTEREST = 443.43
9/11	6345	131.17	314	JACKIE JONES
9/15	6346	65.00	0	GTE (TOTAL 109)
9/15	6347	332.14	0	FORD CREDIT COMPANY, PRINCIPAL = 251.37 INTEREST = 80.77
9/15	6348	350.00	0	INSURANCE (LIABILITY,MACH./EQUIP.)
9/18	6349	502.16	313	LOUIS JERRERA
9/18	6350	409.56	313	JUAN RAMOS, 45 BINS
9/18	6351	418.79	313	GEORGE MARTINEZ, 46 BINS
9/18	6352	437.28	313	MIGUEL NIEVES, 48 BINS

EXPENDITURES FOR A SAMPLE ORCHARD

CONTINUED

ENTER THE FOLLOWING EXPENDITURES ON FORM 2

DATE	CHECK	TOTAL COST	ENT #	DESCRIPTION
				SEPTEMBER
9/18	6353	455.78	313	BOB GELLER, 50 BINS
9/18	6354	465.03	313	JOHN FISHER, 51 BINS
9/18	6355	252.30	313	JACKIE JONES
9/20	6356	177.80		SUNSHINE GROWERS COOPERATIVE
			0	FLAGGING TAPE = 15.00
			0	MACHINERY TOOLS = 60.80
			211/212	GUTHION =102.00
			313/314/415	
9/20	6357	11.40	0	IRRIGATION SUPPLY COMPANY, 3/4" PVC PIPE
9/25	6358	228.26	211/212	LOUIS JERRERA
9/25	6359	182.13	212	JUAN RAMOS, 20 BINS
9/25	6360	228.37	212	GEORGE MARTINEZ, 25 BINS
9/25	6361	191.38	212	MIGUEL NIEVES, 21 BINS
9/25	6362	172.88	212	BOB GELLER, 19 BINS
9/25	6363	108.14	212	JACKIE JONES
9/25	6364	1500.00	0	OPERATOR/FAMILY SALARY
9/30	6365	5062.99	0	PRODUCTION LOAN PAYMENT, PRINCIPAL = 5020.34 INTEREST = 41.48
				OCTOBER
10/2	6366	456.51	211	LOUIS JERRERA
10/2	6367	496.43	MULTI/211	JUAN RAMOS, 31 BINS + BONUS

TM/HO-I/2/2

EXPENDITURES FOR A SAMPLE ORCHARD

CONTINUED

ENTER THE FOLLOWING EXPENDITURES ON FORM 2

DATE	CHECK	TOTAL COST	ENT #	DESCRIPTION
				OCTOBER
10/2	6368	468.78	MULTI/211	GEORGE MARTINEZ, 31 BINS + BONUS
10/2	6369	531.21	MULTI/211	MIGUEL NIEVES, 34 BINS + BONUS
10/2	6370	445.66	MULTI/211	BOB GELLER, 29 BINS + BONUS
10/2	6371	346.23	211	JOHN FISHER, 38 BINS
10/2	6372	198.25	211	JACKIE JONES
10/4	6373	85.26	211	BOB'S GARAGE, PICKUP REPAIR
10/4	6374	112.64	0	LOUIS JERRERA
10/9	6375	901.85	0 + MULTI	LABOR AND INDUSTRIES
10/11	6376	85.68	0	FUTA
10/11	6377	646.68	0	EMPLOYMENT SECURITY
10/11	6378	1596.00	0 + MULTI	WA BANK, FICA
10/15	6379	332.14	0	FORD CREDIT COMPANY, PRINCIPAL = 253.89 INTEREST = 78.25
10/15	6380	75.00	0	GTE (TOTAL 112)
10/16	6381	108.14	0	LOUIS JERRERA
10/20	6382	120.00	0	SUNSHINE GROWERS COOPERATIVE, MISC. SUPPLIES
10/23	6383	180.23	0	LOUIS JERRERA
10/23	6384	375.00	0	FARMERS SUPPLY COMPANY, GASOLINE = 350.00 IRRIGATION = 25.00
10/25	6385	1500.00	0	MOUNTAIN TRACTOR, PURCHASED A TRACTOR MOUNTED SNOW BLOWER, BORROWED: 1150 WITH 350 DOWN
10/30	6386	202.75	313/314 415	LOUIS JERRERA
10/30	6387	1500.00	0 C1	OPERATOR/FAMILY SALARY

FORM 2 MONTH(S) AUG.

DISTRIBUTION OF EXPENDITURES

PAGE 17 YEAR 88

DATE	CHK #	TOTAL COST	ENT. #	DESCRIPTION	HIRED LABOR NET WAGES	DEPOSITED FICA/* FED. INC. TAX W/HOLD	STATE UNEMPLOY. /FUTA	STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	PEST CONTROL	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES
8/5	6207	[illegible]	531	[illegible] WAREHOUSE CHARGES												
8/5	6208	2256 70	532	Lambert - Warehouse Charges												
8/5	6209	855 54	533	Van - Warehouse Charges												
8/7	6210	1243 14	0	WA BANK FICA DEPOSIT		1243 14										
8/7	6211	198 26	121/122	Louis Jerrera	198 26											
8/10	6212	677 40	0	Farm & Ranch Supp.										375 -		
8/11	6213	198 26	211/212	Louis Jerrera	198 26											
8/15	6314	250 -	0	Insurance (Vehicle)												
8/15	621[illegible]	54 -	0	GTE (Tele. Bill 8/88)									54 -			
8/15	621[illegible]	273 -	0	PUD (June/July)									273 -			
8/15	[illegible]217	222 14	0	Ford Credit Co.												
8/20	6218	1706 12		Sunshine Growers Coop.						1548 17	10 08					
			121	[illegible]/DIATHANE 614.80												
			122	PLICTRAN 287.20												
			211	207.90												
			212	29.11												
			313	GUTHION/CACL2 207.90												
			314	ROUNDUP 29.11												
			4.5	142.50												
8/20	6319	42 50	0	Chelan County - Trailer Lic.												
8/21	[illegible]320	283 59	4.5 121/122	Irr. Supp Co. 20 Microjet 25.20 20 [illegible] 250.00												
8/21	6321	198 26	121/122	Louis Jerrera	198 26											
8/21	[illegible]22	1500 -	0	Operator/Family Salary												
8/28	6323	345 76	210/212 [illegible]	Louis Jerrera	345 76											
		19245 23		SUBTOTAL FOR PAGE	940 54	1243 14				1548 17	10 08		327 00	395 00		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

FORM 2 MONTH(S) AUG

DISTRIBUTION OF EXPENDITURES

PAGE 18 YEAR 88

						WAREHOUSE CHARGES			OTHER EXPENSES				NEW INVESTMENTS			PRINCIPAL PAID ON BORROWED FUNDS		
	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE	IND CHG	MISC. SERVICE	MISC. SUP.	[illegible]		TREES/ CAPTL'Z PRODUCTION EXPENSES	DEPREC. ITEMS	NON-DEPREC. ITEMS	PRODUCTION LOANS	INTERMED. LOANS	LONG TERM LOANS
1						3112 [illegible]	[illegible]	100 03										
2						[illegible] 13	1255 14	179 53										
3						355 34	-	-										
4																		
5	132 40	150 -																
6																		
7				350 -														
8																		
9																		
10																		
11					83 25												248 27	
12													142 [illegible]					
13																		
14																		
15																		
16																		
17																		
18			42 50															
19																		
20																		
21		250 -											[illegible]					
22																		
23											1500 -							
24																		
25	132 40	400 [illegible]	42 50	350 00	83 25	[illegible] 24	[illegible] 81	519 61			1500 -		184 -				248 27	
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

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C5

FORM 2 MONTH(S) AUG./SEPT.

DISTRIBUTION OF EXPENDITURES

PAGE 19 YEAR 88

	DATE	CHK #	TOTAL COST	ENT. #	DESCRIPTION	HIRED LABOR: NET WAGES	HIRED LABOR: DEPOSITED: FICA/ FED. INC. TAX W/HOLD	HIRED LABOR: DEPOSITED: STATE UNEMPLOY. /FUTA	HIRED LABOR: DEPOSITED: STATE WORKERS COMP.	HIRED LABOR: MISC. BENEFITS/ HOUSING	PEST CONTROL	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES
1			19843 23		SUBTOTAL PREVIOUS PAGE	940 54	1243 14				1548 17	10 08		327 [illegible]	295 [illegible]		
2	8/28	6324	228 02	122	Juan Ramos 25 hrs	228 02											
3	8/28	6325	251 14	122	George Martinez 25 hrs	251 14											
4	8/28	6326	221 66	122	Miguel Nieves 22 hrs	221 66											
5	8/28	6327	121 65	122	JACKIE JONES	121 65											
6	8/30	6328	2312 [illegible]	0	Mountain Tractor												
7	8/30	6329	5042 [illegible]	0	Production Loan Payment												
8			28144 65		AUGUST TOTAL	1823 01	1243 14				1542 17	10 08		327 [illegible]	295 [illegible]		
9	9/4	6332	410 86	121	Louie Jelleria	410 86											
10	9/4	6333	221 27	121	JUAN RAMOS 27 hrs	221 27											
11	9/4	6334	321 28	121	George MARTINEZ 28 hrs	321 28											
12	9/4	6335	350 86	121	Miguel NIEVES 35 hrs	350 86											
13	9/4	6336	350 86	121	BOB GELLER 35 hrs	350 86											
14	9/4	6337	432 25	121	John Fisher 43 hrs	432 25											
15	9/4	6338	198 55	121	JACKIE JONES	198 55											
16	9/10	[illegible]	320 40	0	FARM & RANCH SUPL.										320 40		
17	9/11	[illegible]	225 22	121/122 314	Louie Jelleria	225 22											
18	9/11	6341	246 15	314	JUAN RAMOS 27 hrs	246 15											
19	9/11	6342	218 11	314	GEORGE MARTINEZ 24 hrs	218 11											
20	9/11	6343	236 10	314	MIGUEL NIEVES [illegible] hrs	236 10											
21	9/11	6344	227 66	314	BOB GELLER 25 hrs	227 66											
22	9/11	6345	127 17	314	JACKIE JONES	127 17											
23	9/15	6346	65 —	0	GTE (TOTAL 107)									65 00			
24	9/15	6347	232 14	0	Ford Credit Co.												
25			6249 [illegible]		SUBTOTAL FOR PAGE	3798 01								65 00	320 40		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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FORM 2 MONTH(S) AUG/SEPT

DISTRIBUTION OF EXPENDITURES

PAGE 20 YEAR 88

						WAREHOUSE CHARGES			OTHER EXPENSES				NEW INVESTMENTS			PRINCIPAL PAID ON BORROWED FUNDS		
	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE	IND [illegible]	MISC. SERVICE	MISC. SUPP.	OPERATOR/ FAMILY [illegible]		TREES/ CAPIL'Z PRODUCTION EXPENSES	DEPREC. ITEMS	NON-DEPREC. ITEMS	PRODUCTION LOANS	INTERMED. LOANS	LONG TERM LOANS
1	132 [illegible]	400 -	42 50	350 00	[illegible]	4875 84	1684 81	[illegible]			1500 -		184 [illegible]				248 87	
2																		
3																		
4																		
5																		
6					443 43												1910 53	
7					83 33											4979 66		
8	132 [illegible]	400 00	42 50	350 00	610 01	4875 84	1684 81	[illegible]			1500 00		184 [illegible]			4979 66	2159 42	
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16										34 00								
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24					20 17												251 37	
25					30 17					34 -							251 37	
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

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FORM 2   MONTH(S) Sept.

DISTRIBUTION OF EXPENDITURES

PAGE 21 YEAR 88

	DATE	CHK #	TOTAL COST		ENT. #	DESCRIPTION	HIRED LABOR NET WAGES		DEPOSITED FICA/ FED. INC. TAX W/HOLD		STATE UNEMPLOY. /FUTA		STATE WORKERS COMP.		MISC. BENEFITS/ HOUSING		PEST CONTROL		FERTILIZER /LIME		IRRIGATION ASSESSMENT		UTILITIES		FUEL/ OIL		TRUCK/ AUTO		REPLACE TREES		
1			4547	51		SUBTOTAL PREVIOUS PAGE	2118	31															65	00	520	10					1
2	7/15	6242	250	–	O	INSURANCE (Auto, Med, [illegible]																									2
3	7/18	6249	502	16	212	Louis J[illegible]	502	16																							3
4	9/12	6350	391	14	212	Juan [illegible] 40 PW	391	14																							4
5	9/12	6351	412	73	212	George Martinez 40 PW	412	73																							5
6	9/12	6352	421	22	212	Miguel Nieves 40 PW	421	22																							6
7	9/12	6353	455	15	212	Lou Geller 50 PW	455	15																							7
8	9/12	6354	[illegible]		[illegible]	J[illegible] [illegible] PW	[illegible]	07																							8
9	9/12	6355	252	[illegible]	212	Jar[illegible]	[illegible]	3[illegible]																							9
10	9/1[illegible]	635[illegible]	[illegible]	[illegible]		[illegible] of Growers Sup[illegible]											81	60													10
11					L	[illegible] Tools/Flagging Tape																									11
12					211	28.26																									12
13					[illegible]	[illegible] 12.24																									13
14					213	28.26																									14
15					214	12.24																									15
16					215	[illegible]																									16
17	9/20	6357	11	[illegible]	C	Irrigation Supply Co. [illegible]																									17
18	9/2[illegible]	[illegible]	[illegible]	26	[illegible]	Louis J[illegible]	[illegible]	[illegible]																							18
19	9/2[illegible]	[illegible]	[illegible]	[illegible]	212	Juan [illegible] 20 PW	[illegible]	[illegible]																							19
20	9/2[illegible]	[illegible]	[illegible]	[illegible]	21[illegible]	George Martinez 25 PW	[illegible]	47																							20
21	9/2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Miguel Nieves 21 PW	[illegible]	27																							21
22	9/2[illegible]	[illegible]	172	2[illegible]	[illegible]	Lou Geller [illegible] PW	172	28																							22
23	9/2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Jar[illegible]	10[illegible]	14																							23
24	9/2[illegible]	[illegible]	1500		O	[illegible]																									24
25			[illegible]	21		SEPTEMBER TOTAL	7850	01									21	60					65	05	520	45					25
	1	2	3		4	5	6		7		8		9		10		11		12		13		14		15		16		17		

FORM 2 MONTH(S) Sept.

DISTRIBUTION OF EXPENDITURES

PAGE 22 YEAR 88

						WAREHOUSE CHARGES			OTHER EXPENSES				NEW INVESTMENTS			PRINCIPAL PAID ON BORROWED FUNDS		
	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE		Misc. Service	Misc. Supplies	Operator/ Family Salary		TREES/ CAPIT'Z PRODUCTION EXPENSES	DEPREC. ITEMS	NON-DEPREC. ITEMS	PRODUCTION LOANS	INTERMED. LOANS	LONG TERM LOANS
1					80 11					34 00							251 37	
2				350 -														
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10	40 40									15 00			20 40					
11																		
12																		
13																		
14																		
15																		
16																		
17		11 40																
18																		
19																		
20																		
21																		
22																		
23																		
24											1500 00							
25	40 40	11 40		350 00	80 11					49 00	1500 00		20 40				251 37	
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

FORM 2 MONTH(S) Oct.

DISTRIBUTION OF EXPENDITURES

PAGE 22 YEAR 82

DATE	CHK #	TOTAL COST	ENT. #	DESCRIPTION	HIRED LABOR NET WAGES	HIRED LABOR DEPOSITED FICA/ FED. INC. TAX W/HOLD	HIRED LABOR DEPOSITED STATE UNEMPLOY. /FUTA	HIRED LABOR DEPOSITED STATE WORKERS COMP.	HIRED LABOR MISC. BENEFITS/ HOUSING	PEST CONTROL	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES	
[illegible]	[illegible]	[illegible] 51	21	Louis Ferreira	[illegible] 51												1
[illegible]	367	[illegible]	[illegible]	[illegible]	[illegible]												2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]												3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]												4
10/2	1370	[illegible]	[illegible]	[illegible]	[illegible]												5
[illegible]	371	[illegible]	[illegible]	[illegible]	[illegible]												6
[illegible]	372	[illegible]	20	[illegible]	[illegible]												7
[illegible]	73	[illegible]	[illegible]	[illegible]											85 26		8
[illegible]	374	112 [illegible]	0	Louis Ferreira	112 [illegible]												9
[illegible]	75	901 85	[illegible]	[illegible]				901 85									10
[illegible]	376	85 67	0	FUTA			85 68										11
[illegible]	377	646 [illegible]	0	[illegible]			646 68										12
[illegible]	378	1596 [illegible]	[illegible]	[illegible] FICA		1596 40											13
[illegible]	379	222 14	0	[illegible] Co													14
10/15	380	75 -	0	(GTE [illegible] 112)									75 -				15
[illegible]	381	103 [illegible]	[illegible]	Louis Ferreira	103 14												16
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]													17
[illegible]	[illegible]	[illegible]	[illegible]	Louis Ferreira	150 22												18
[illegible]	384	375	[illegible]	[illegible]										350			19
[illegible]	385	1500 -	0	[illegible]													20
[illegible]	[illegible]	212 15	[illegible]	Louis Ferreira	212 15												21
10/20	387	1500 -	0	[illegible] SALARY													22
10/20	6?1	5012 18	0	Production Loan Payment													23
		15827 22		OCTOBER TOTAL	3546 83	1596 40	732 36	901 85					75 -	350 -	85 26		24
																	25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	

FORM 2 MONTH(S) Oct.

DISTRIBUTION OF EXPENDITURES

PAGE 23 YEAR 88

						WAREHOUSE CHARGES			OTHER EXPENSES				NEW INVESTMENTS			PRINCIPAL PAID ON BORROWED FUNDS		
	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE		Misc Service	Misc. Supplies	Operator Family Labor		TREES/ CAPTL'Z PRODUCTION EXPENSES	DEPREC. ITEMS	NON-DEPREC. ITEMS	PRODUCTION LOANS	INTERMED. LOANS	LONG TERM LOANS
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24		25 00			120 09					120 00	1500 00			1500 -		5020 34	253 29	
25																		
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

FORM 1 MONTH(S)

SOURCES OF RECEIPTS

PAGE YEAR

						COOP PATRONAGE DIVIDENDS/REFUNDS						OTHER RECEIPTS				
	DATE RECEIVED	DATE OF DEPOSIT	TOTAL RECEIPT	DESCRIPTION	CUSTOM WORK	$	EQUITY	CAPITAL SALES	INTEREST	BORROWED FUNDS	ACCRUAL ADJUSTMENT					
1																1
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3																3
4																4
5																5
6																6
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25																25
	1	2	3	4	5	6	7	8	9	10	11	12	13		15	

FORM 1 MONTH(S)

SOURCES OF RECEIPTS

PAGE YEAR

CROP RECEIPTS

	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	ENT. #(S):	
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FORM 2 MONTH(S)

DISTRIBUTION OF EXPENDITURES

PAGE YEAR

						HIRED LABOR												
							DEPOSITED											
	DATE	CHK #	TOTAL COST	ENT. #	DESCRIPTION	NET WAGES	FICA/ FED. INC. TAX W/HOLD	STATE UNEMPLOY. /FUTA	STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	PEST CONTROL	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES	
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		17	

FORM 2 MONTH(S)

DISTRIBUTION OF EXPENDITURES

PAGE YEAR

						WAREHOUSE CHARGES			OTHER EXPENSES				NEW INVESTMENTS			PRINCIPAL PAID ON BORROWED FUNDS			
	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE						TREES/ CAPTL'Z PRODUCTION EXPENSES	DEPREC. ITEMS	NON-DEPREC. ITEMS	PRODUCTION LOANS	INTERMED. LOANS	LONG TERM LOANS	
1																			1
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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

III. Lesson 3: Maintaining Payroll Records

A. Review

The previous lesson, Recording Receipts and Expenditures, should be reviewed. List all conclusions reached in the last meeting. Some possible conclusions might be:

1. Receipts and expenditures are the backbone of the orchard business record system.
2. Receipt entries are made twice on the Sources of Receipts (Form 1).
3. Expenditure entries are made twice on the Distribution of Expenditures (Form 2).
4. Flexibility in the use of the receipt and expenditures form is provided by open categories.
5. An accuracy check should be made at the end of each month.
6. Monthly totals should be written in red.
7. Monthly totals should be transferred to the Cash Flow Summary (Form 24) at the end of each month.
8. Line C of Form 24 should agree with the checkbook if the cash method of accounting is used.

B. Objective

To establish and maintain accurate payroll records and meet governmental rules on withholding and payment of payroll taxes.

C. Motivation

1. Start the discussion by asking enrollees what percent of their production costs are labor costs. List some of these estimates on the board.
2. Ask enrollees what percent of their management time is spent maintaining labor records and what dollar value they put on that time.

3. Show TM-II/3/1 (Graphic Representation of Percentage Costs of Labor for Various Commodities). Compare these with enrollees estimates.

4. Penalties for tardiness on depositing payroll taxes can be steep.

D. Key Questions

1. Why are payroll records important to the smooth operation of the Orchard Business?

2. What are some guidelines for recording payroll on Form 4?

3. What are some guidelines for recording payroll on Form 5?

4. How are Federal Income Tax withholding, Social Security Tax, FUTA, State Unemployment Insurance and State Workers Compensation transferred to the Schedule of Tax Deposit forms (6 and 7)?

5. How are payroll records transferred to the Distribution of Expenditures form (2).

6. When must State Workers Compensation, Federal Income Tax Withholding, Social Security Tax, FUTA and State Unemployment Insurance be deposited or paid.

E. Introduction of Information

1. Why are payroll records important to the smooth operation of the orchard business?

   a. Fruit production is one of the most labor intensive forms of agriculture in the United States. Labor costs for orchard operations can run between 45-55% as compared to 15% for field crops such as wheat. Labor costs are traditionally offset by machinery costs in other forms of agriculture.

      1) Complete labor records are the most important cost record for analysis of overall costs of producing various crops.

      2) Good labor records do take time but that portion of management time will yield good returns to the operation.

      3) Keeping complete records (those that will aid in cost analysis) requires very little additional time over minimum required government regulations.

   b. Labor is not only one of the most important resources in the production of fruit crops it also has the potential for becoming one of the scarcest resources.

1) Managing what has the potential of becoming a scarce resource will require accurate estimates for labor needs from year to year.

2) Deciding between alternatives based on cost and return to this scarce resource will involve important management decisions. Good historic records are an important tool in making the right choice.

c. Labor is the most highly regulated phase of any orchard operation. TM-I/3/2

1) Payroll taxes have become increasingly more complex and require accurate records to insure proper withholding, payment and timely deposit of state and federal payroll taxes. Penalties for improper deposits can be very costly.

2) The Immigration and Naturalization law of 1986 requires employers to take some responsibility for policing illegal entry of noncitizen workers. Good documentation of essential papers must be kept on all individuals under your employ.

2. What are some guidelines for recording payroll on Form 4?

Have enrollees turn to Forms 4 in the Orchard Business Management Record Book and follow along as the components of these forms are explained. Following this description, make entries from the Sample Payroll entries handout TM/HO-I/3/3 onto the transparency of Forms 4 (TM-4). Pass out copies of TM/HO-I/3/3 and have enrollees record sample payroll entries in their record books.

a. Form 4 is designed to keep records for one employee per sheet.

1) Enter the employee name, address, Social Security number, birth date, birthplace and work authorization card number, date checked on the top of Form 4.

2) If federal income taxes are to be withheld have the employee fill out a W-2 Wage and Tax Statement. Use the current year's Circular E for tables on the amount of income tax to withhold. Place the number of exemptions and the percent withholding on the top of Form 4.

b. One of the best methods for recording payroll information on Form 4 is from Payroll cards filled out by employees, managers and/or foremen.

c. The Payroll Form 4 is designed to make daily, weekly or bimonthly entries depending on a particular pay schedule for a given job.

   1) The form allows flexibility so any combination of payment scheduling may be used.

   2) The date (1) should include the period of time the payment will cover.

d. Enterprise number (2) should be completed with the appropriate enterprise number if enterprise accounting is used.

   1) If the pay period contains jobs from more than one enterprise, list each enterprise on a new line and record the job in the appropriate job category, on that line.

   2) If all work on the pay period is in one enterprise, record on one line and enter in the appropriate job categories on that line.

   3) For jobs which are nonspecific to one enterprise allocate to the overhead enterprise.

f. Include a brief description (3). This might include location, conditions or further specification of the job.

g. Five major categories for orchard jobs are listed along the top of Form 4 with 3 open categories to add flexibility to your record.

   1) Enter the appropriate names for the open categories.

   2) Maintain the same category names in the open columns for all employees throughout the year.

   3) The decision on how these additional categories are specified might be based on the percentage of the total cost a job is or the number of entries the job requires. These open columns may also be used to hone in on specifics of a job category. For example swamping costs of harvest.

h. For each job category enter the rate/unit paid for this employee.

  1) Any combination of units may be used; trees, bins, acres, hours, etc..

  2) For good enterprise analysis purposes it is important to keep units consistent for a given job category.

  3) For ease of record keeping it may be easier for job categories with mixed units (such as harvest) to be converted by the record keeper rather than workers or foreman in the field. An example; a swamper may report in hours which could easily be converted to bins. (Multiply rate X hours divide by total bins picked.)

i. Enter the number of units from the payroll card.

j. Multiply the number of units times the rate/unit and record in the Gross Pay column for each job category.

k. It is important to keep a record of hours worked by employees, even for those payed on a piecework basis. Enter hours worked from the payroll card onto column 28 of Form 4.

l. Sum the Gross Pay columns for each job category and enter in the Total Gross Pay column (30).

m. To determine the rate/hour, if the piecework method of payment was used, divide the Total Gross Pay by the number of hours worked (30/28).

n. To determine the Federal Income Tax Withholding, if appropriate, multiply the percentage withheld times the Total Gross Pay and enter in column 31.

o. Social Security Tax. If an employee is a resident of the United States and:

  1) The cash wages paid were $150 or more in a year, or;

  2) The employee worked for you on 20 or more days during the year for any amount of cash wages.

  You must pay Social Security Tax on all cash wages. To do this, multiply Total Gross Pay X 7.15% and enter that amount in column 32 and 33.

p. State Workers Compensation is calculated using the following guidelines.

1) For employee paid State Workers Compensation multiply Total Gross Pay X ____% and enter that amount in column 33.

2) For employer paid State Workers Compensation multiply Total Gross Pay X ____% and enter in column 36.

q. If the employer pays for housing or meals to an employee enter that amount in column 34. Remember to enter that amount as a receipt on Form 2 in an open category.

r. Net Pay is determined by subtracting the sum of columns 31-34. Enter that amount on column 35.

s. Cash wages paid to farm workers are subject to Federal Unemployment Taxes (FUTA) paid by the employers if the employee:

1) Paid cash wages of $20,000 or more to farmworkers in any calendar quarter, or

2) Employed 10 or more farmworkers during some portion of a day for at least one day during any 20 different weeks in a year.

3) Alien farmworkers must be counted in as farmworkers for the previous 2 tests but their wages are exempt from FUTA.

4) To determine the FUTA tax multiply the Total Gross Pay x .008 and enter in column 37.

t. Housing/miscellaneous (34) is designed to enter housing costs paid by orchardists to employees as well as the Fair Market Value of noncash payments given to employees as payments for services. If federal income taxes are withheld follow one of the two following steps to determine the Federal Income Tax Withholding.

1) If noncash payments (Housing, miscellaneous -T) do not include food and lodging furnished for the employers convenience then multiply the Total Gross Pay (L) plus Housing/Miscellaneous times the % Federal Income Tax. Enter that amount in column M.

2) If noncash payments (Housing/Misc.-T) to employees include food and lodging furnished for the employer's convenience then multiply the Total Gross Pay times the % Federal Income Tax. Enter that amount in column M.

3. What are some guidelines for recording payroll for seasonal laborers on Form 5?

   Have enrollees turn to Form 5 in the Orchard Business Management Record Book and follow along as the components of this form are explained. Following this description make entries from the Sample Payroll entries handout TM/HO-I/3/3 onto the transparency of Form 5. Pass out copies of TM/HO-I/3/3 and have enrollees record sample payroll entries.

   a. Form 5 is designed for payroll needs associated with seasonal laborers. This form holds entries for 2 laborers per side and will reduce the number of pages necessary in recording payroll entries.

   b. The information entered on this form is entered very similarly to entries on Form 4 and guidelines given under Key Question 2 can be used where appropriate on this form.

   c. The major difference found on this form is a reduction in the number of job categories to those commonly associated with the use of seasonal laborers.

4. How are Federal Income Tax Withholding, Social Security Tax, FUTA, State Unemployment Insurance and State Workers Compensation transferred to Forms 6 and7.

   Have enrollees turn to the Federal Tax Deposit Schedule (5), Unemployment Insurance/Workers Comp Quarterly Reports and follow along as sample payroll entries are transferred to Form 6 and 7. Have enrollees transfer their entries on Forms 4 and 5 to Forms 6 and 7.

   a. Once the Payroll entries for an employee's pay period are complete transfer the Federal Income Tax withholding and the FICA to Form 6.

      1) Enter the current date in column 1 of Form 6.

      2) Enter the Federal Income Tax Withholding in column 2 of Form 5.

      3) Enter the employee paid Social Security Tax on column 3 and the Employer Paid Social Security Tax onto column 4 of Form 5.

4) To determine the Tax Balance add the Federal Income Tax (2) to the Social Security Tax (3 and 4) plus the previous Tax Balance (column 5 previous line). Enter this on column 5 of the current line.

b. At the end of each quarter calculate the amount of FUTA and state unemployment insurance and workers compensation due for each employee and enter that information on Form 7.

1) Write the workers name in column 2.

2) Enter the hours worked for this quarter in column 2.

3) Enter the total gross pay in column 3.

4) Enter the total FUTA in column 4.

5) Enter total state workers compensation unemployment insurance in column 5.

6) Enter the sum of the employee paid, employer paid workers compensation in column 6.

7) Repeat this procedure for each employee. These can be used to complete quarterly reports as is necessary

5. How is payroll transferred to the Distribution of Expenditures (Form 2).

Using the entries recorded on Form 4 and 5 transfer these entries to Distribution of Expenditures, Form 2. Have enrollees work along making entries on the forms in the record book.

a. Net Pay, column 35 Form 4 or column 19 Form 5 is transferred to the Distribution of Expenditures (Form 2) on column 6 when the check is written to the employee.

1) Remember to include the date of the check, the check number and a brief description of the transaction.

2) You need not include the enterprise number as the enterprise allocation will be taken directly from payroll.

b. Payroll taxes are paid when those taxes are paid or deposited. Information is transferred from the Schedule of Federal Tax Deposits, Form 5 or Quarterly Report, Form 6.

    1) Column 7, Form 2 is transferred from column 5, Form 6.
    2) Column 8, Form 2 is transferred from the sum of column 4 and 5, Form 7.
    3) Column 9, Form 2 is transferred from column 6, Form 7.

c. Housing/misc. (column T-Form 5) is transferred to column Q of Form 5 as those payments are made to the employee.

6. When must State Workers Compensation, Federal Income Taxes, Social Security Taxes State Unemployment Insurance and FUTA Taxes be deposited or paid?

   Using 6 and 7, demonstrate how to determine when payroll taxes are due. Have enrollees work along on Form 6 and 7 of the Orchard Business Management Record Book.

   a. State Workers Compensation is due (at the nearest Labor and Industries Office) 30 days following the end of each quarter.
      1) At the end of each calendar quarter total the State Workers Compensation column 6 of Form 7. Write that total in RED.
      2) Total the number of hours worked in that quarter, column 1.
      3) Transfer that information onto the appropriate Labor and Industries forms.
      4) Quarterly payments and reports for State Workers Compensation must arrive within 30 Days after the end of the quarter (not simply postmarked).

   b. FUTA taxes, like State Workers Compensation are also due quarterly.
      1) To determine the deposit which must be made, total column 4 of Form 7 at the end of the quarter.
      2) Write that total in RED.
      3) If that total plus any undeposited FUTA tax for earlier quarters in the year is more than $100 you must deposit the full amount during the first month of the following quarter.
      4) When a deposit is made, indicate so in column 4 of that quarter.

5) If the total for the quarter (plus any undeposited FUTA from the previous quarter) is less than $100 you will not make a deposit until one of the following quarters.

6) By January 31, you must file Federal Tax form 940 - Employer's Annual Federal Unemployment Tax Return. If the FUTA tax report on Form 940 minus the amounts deposited for the first 3 quarters is more than $100 deposit that whole amount by January 31. If the FUTA tax minus any deposits is $100 or less you may either deposit the tax or pay it with submission of Form 940 by January 31.

c. To determine when Social Security Taxes and Federal Income Taxes must be deposited you must keep a running balance of these on Form 6.

1) Keep a current running balance in the Tax Balance column 5. Deposits are considered due when wages are paid.

2) To determine the current tax balance add the Federal Income Tax column 2 plus the Social Security Tax columns 3 and 4 plus the Tax Balance column 5 for the previous line. Enter that amount in the Tax Balance Columns 5 for the current line.

3) Deposits are due if:

a) If at the end of any month your total Tax Balance column 5 is between $500 and $3000 taxes must be deposited within 15 days after the end of the month.

b) If at the end of any eighth monthly period (the 3rd, 7th, 11th, 15th, 17th, 22nd, 25th or the last day of the month) your total taxes are $3000 or more you must deposit that amount within 3 banking days after the eighth monthly period.

c) If one of 2 of these conditions is met you must make a deposit.

d) As a cross check total the Federal Income Tax Withholding, Column 2, and write that total in red. Then total the Social Security Tax Columns 3 and 4 and enter that total in Red. The sum of these 2 Columns should be equal to the Tax Balance (5) for the previous line.

e) When a deposit is made enter 0 in red on the Tax Balance, Column 5, on the current line.

f) Transfer the appropriate information to the Distribution of Expenditures Form 2.

F. Group Discussion

Sufficient time should be allotted for enrollees to ask questions and discuss problems which can occur in recording payroll transactions. Allow for a discussion on comparisons between the Orchard Business Management Record Book and the payroll system they are currently using. Encourage enrollees to share their ideas on effective techniques they have used in managing payroll records.

G. Conclusions

1. Producing fruit crops is one of the most labor intensive forms of agricultural production.
2. Labor has the potential for becoming a scarce production resource.
3. Hired labor is one of the most highly regulated phases of the orchard business.
4. Payroll records should be categorized by job for business analysis purposes.
5. The use of time cards will be helpful in filling out payroll records.
6. Much of payroll costs may be allocated to a specific enterprise.
7. A record of hours worked must be kept even when workers are paid on a piecework basis.
8. Payroll taxes, for all employees, should be kept on schedules (Form 5 and 7) to determine when taxes must be deposited.

H. Orchard Visit

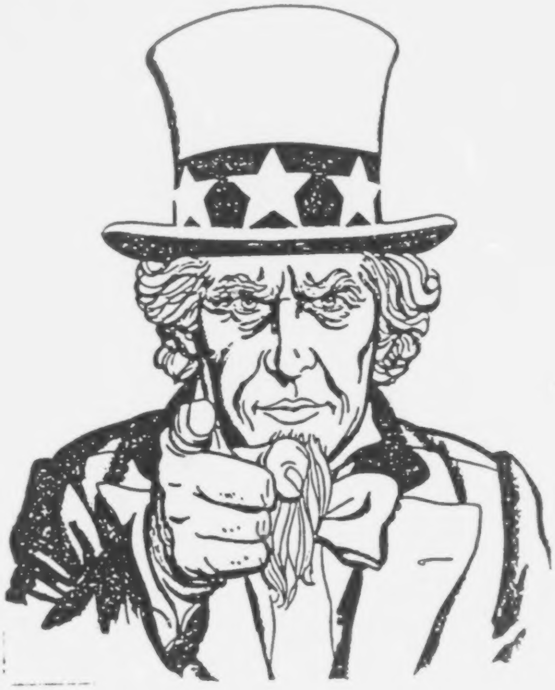
When visiting enrollees following Lesson 3 be sure that they have an understanding of payroll records. Work with them on their current payroll. Pay particular attention to bringing the Federal Tax Deposit Schedule and Quarterly Schedule up to date since their last deposit was made. Help them determine what additional cost categories might be appropriate for their particular operation.

I. Materials Needed

Instructor:

Orchard Business Management Record Book

TM-I/3/1	Graphic Representation of Percentage Costs of Labor for Various Commodities
TM-I/3/2	Uncle Sam is Watching
TM-I/3/3	Sample Payroll Entries
TM-4	Payroll-Full/Part-time Labor
TM-5	Payroll-Seasonal Labor
TM-6	Federal Tax Deposit Schedule
TM-7	Unemployment Insurance/Workers Compensation - Quarterly Totals



UNCLE SAM IS WATCHING

YOU

PAYROLL INFORMATION FOR SAMPLE ORCHARD

The following information is a list of information from payroll cards from August through October. Wage for harvested pears was $11/bin and $10/bin for apples. A $1.25 bonus per bin was given harvestors who saw the season through.

DATE	EMPLOYEE NAME	HOURS	UNITS	DESCRIPTION
8/7	L. Jerrera	44@$5		Irrig. Blk 1 Mow Blk 2
8/14	L. Jerrera	44@$5		Irrig. 2 Mow 1
8/21	L. Jerrera	44@$5		Irrig. 1 Bin Plcmt.-Bartlett
8/28	L. Jerrera	48 20@$5	28@$10	Irrig. 3 Swamp-Barlett
8/28	Juan Ramos	27	25	Bartletts
8/28	G. Martinez	27	25	Bartletts
8/28	M. Nieves	27	28	Bartletts
8/28	J. Jones	27@$5		Bartletts
9/4	J. Ramos	44	38	D'Anjous
9/4	L. Jerrera	45@$10		Swamper-D'Anjous
9/4	G. Martinez	44	38	D'Anjous
9/4	M. Nieves	44	35	D'Anjous
9/4	B. Geller	44	35	D'Anjous
9/4	J. Fisher	44	43	D'Anjous
9/4	J. Jones	44@$5		D'Anjous
9/11	L. Jerrera	45@$10		Swamper-Spur Golden
9/11	J. Ramos	30	27	Spur Golden
9/11	G. Martinez	30	24	Spur Golden
9/11	M. Nieves	30	26	Spur Golden
9/11	B. Geller	30	25	Spur Golden
9/11	J. Jones	30@$5		Spur Golden
9/18	L. Jerrera	55@$10		Oregon Spur-Swamper
9/18	J. Ramos	56	45	Oregon Spur
9/18	G. Martinez	56	46	Oregon Spur
9/18	M. Nieves	56	48	Oregon Spur
9/18	B. Geller	56	50	Oregon Spur
9/18	J. Fisher	56	51	Oregon Spur
9/18	J. Joners	56@$5		Oregon Spur
9/25	L. Jerrera	25@$10		Std. Golden-Swamper
9/25	J. Ramos	24	20	Std. Golden
9/25	G. Martinez	24	25	Std. Golden
9/25	M. Nieves	24	21	Std. Golden
9/25	B. Geller	24	19	Std. Golden
9/25	J. Jones	24@$5		Std. Golden
10/2	L. Jerrea	50@$10		Starking-Swamper
10/2	J. Ramos	44	31	Starking
10/2	G. Martinez	44	28	Starking
10/2	M. Nieves	44	34	Starking
10/2	B. Geller	44	29	Starking
10/2	J. Fisher	44	38	Starking
10/2	J. Jones	44@$5		Starking
10/9	L. Jerrera	25		General Cleanup
10/16	L. Jerrera	24		General Cleanup
10/23	L. Jerrera	40		General Maint./Mowing
10/30	L. Jerrera	45		General Maint./Mowing

FORM 4 MONTH(S)

PAYROLL - FULL/PART-TIME LABOR

PAGE YEAR

EMPLOYEE NAME: Louis Jerrera ADDRESS: S.S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

	DATE	ENT. #	JOB DESCRIPTION	PRUNING/BRUSH REMOVAL			IRRIGATION			THINNING			CHEMICAL APPLICATION			HARVEST			General Maint			
				RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	
1	7/1	[illegible]	[illegible]				5.0	24	120 -										5.0	20	100 -	1
2	7/4	[illegible]	[illegible]				5.0	[illegible]	120 -										5.0	8	40 -	2
3	[illegible]	[illegible]	[illegible]				5.0	24	120 -							5.0/1.11	20/[illegible]	[illegible] -				3
4	[illegible]	[illegible]	[illegible]				5.0	20	100 -							10/2.82	25/[illegible]	[illegible] -				4
5								104	520 -								148 181	380 -		28	140 -	5
6	9/4	[illegible]	Swamper													10/2.28	45/[illegible]	450 -				6
7	9/11	214	Swamper													10/3.45	25/[illegible]	250 -				7
8	9/17	[illegible]	Swamper													10/2.27	55/240	550 -				8
9	9/25	212	Swamper													10/2.22	25/[illegible]	250 -				9
10																	150/606	1500 -				10
11																						11
12	10/2	211	Swamper													10/[illegible]	50/[illegible]	500 -				12
13	[illegible]	[illegible]	General Maint																5	25	125 -	13
14	[illegible]	[illegible]	[illegible]																[illegible]	24	120 -	14
15	[illegible]	[illegible]	General Maint/[illegible]																5	40	200 -	15
16	[illegible]	[illegible]	General Maint/[illegible]																5	45	225 -	16
17																	50/160	500 -		134	670	17
18																						18
19																						19
20																						20
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 4 MONTH(S)

PAYROLL - FULL/PART-TIME LABOR

PAGE YEAR

ADDITIONAL INFORMATION:

										EMPLOYEE PAID					EMPLOYER PAID					
	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE -/HOUR	TOTAL GROSS PAY	FED. INC. TAX W/HOLDING	.0751 FICA	[illegible] STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	NET PAY	[illegible] FICA	[illegible] FUTA	.0417 STATE UNEMPLOY. INSURANCE	.1008 STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	
1							44	5.0	220 -		16 52	5 22		175 [illegible]	16 52	1 32	9 21	22 05		1
2							44	5.0	220 -		16 52	5 22		[illegible] 26	16 52	1 32	9 21	22 05		2
3							44	5.0	220 -		16 52	5 22		198 26	16 52	1 32	9 21	22 05		3
4							48	7.92	380 -		28 54	5 70		345 76	28 54	2 28	[illegible]	24 04		4
5							180		1040 -		78 10	21 36		940 54	78 10	6 24	[illegible]	90 12		5
6							45	10	450 -		33 79	5 35		410 86	33 79	2 70	18 [illegible]	22 54		6
7							45	5.55	250 -		18 77	5 35		225 88	18 77	1 50	10 12	22 54		7
8							55	10 -	550 -		41 30	6 54		502 16	41 30	3 30	[illegible] 02	27 54		8
9							25	10 -	250 -		18 77	2 17		228 [illegible]	18 77	1 50	10 12	12 53		9
10							170		1500 -		112 63	20 [illegible]		1367 16	112 [illegible]	9 -	[illegible]	85 14		10
11																				11
12							50	10 -	500 -		37 55	5 94		456 41	37 55	3 -	21 85	25 04		12
13							25	5 -	125 -		9 39	2 97		112 64	9 39	75	5 46	12 52		13
14							24	5 -	120 -		9 01	2 85		108 14	9 01	72	5 24	12 02		14
15							40	5 -	200 -		15 02	4 75		180 23	15 02	1 20	8 74	20 03		15
16							45	5 -	225 -		16 90	5 35		202 75	16 90	1 35	9 83	22 54		16
17							184		1170 -		87 87	21 86		1060 27	87 87	7 02	[illegible] 27	92 15		17
18																				18
19																				19
20																				20
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	

FORM 5 MONTH(S)

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: Miguel Nieves ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

DATE	ENT. #	PRUNING/BRUSH REMOVAL RATE/UNIT	PRUNING/BRUSH REMOVAL # UNITS	PRUNING/BRUSH REMOVAL GROSS PAY	THINNING RATE/UNIT	THINNING # UNITS	THINNING GROSS PAY	HARVEST RATE/UNIT	HARVEST # UNITS	HARVEST GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID 1177 FED. INC. TAX W/HOLDING	EMPLOYEE PAID .0751 FICA	EMPLOYEE PAID STATE WORKERS COMP.	NET PAY	EMPLOYER PAID .0751 FICA	EMPLOYER PAID .006 FUTA	EMPLOYER PAID STATE UNEMPLOY. INSURANCE	EMPLOYER PAID STATE WORKERS COMP.	
[illegible]	[illegible]							11.00	28	308 -	28		308 -			[illegible]	3 [illegible]	[illegible]	[illegible]	[illegible]	13 46	15 [illegible]	1
[illegible]	121							11.00	35	385 -	44		385 -			[illegible]	5 [illegible]	[illegible]	[illegible]	2 31	16 22	27 [illegible]	2
[illegible]	314							10.[illegible]	26	260 -	30		260 -			19 53	3 [illegible]	236 [illegible]	19 53	1 56	11 96	15 [illegible]	3
[illegible]	312							10.00	48	480 -	56		480 -			36 [illegible]	6 [illegible]	437 [illegible]	[illegible]	2 88	20 38	29 [illegible]	4
[illegible]	212							[illegible]	21	210 -	24		210 -			15 [illegible]	2 [illegible]	191 [illegible]	15 [illegible]	1 26	9 12	12 [illegible]	5
[illegible]	.1										181		1345 -			123 [illegible]	[illegible]	[illegible]	[illegible] 29	9 36	71 29	90 [illegible]	6
[illegible]	[illegible]							[illegible]	34	340 -	44		340 -			[illegible]	5 [illegible]	[illegible]	25 [illegible]	2 04	14 96	22 [illegible]	7
[illegible]	.1								192	1992 -	44		340 -			25 [illegible]	[illegible]	[illegible]	25 [illegible]	2 04	14 96	22 [illegible]	8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

EMPLOYEE NAME: ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

DATE	ENT. #	PRUNING/BRUSH REMOVAL RATE/UNIT	PRUNING/BRUSH REMOVAL # UNITS	PRUNING/BRUSH REMOVAL GROSS PAY	THINNING RATE/UNIT	THINNING # UNITS	THINNING GROSS PAY	HARVEST RATE/UNIT	HARVEST # UNITS	HARVEST GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID FED. INC. TAX W/HOLDING	EMPLOYEE PAID FICA	EMPLOYEE PAID STATE WORKERS COMP.	NET PAY	EMPLOYER PAID FICA	EMPLOYER PAID FUTA	EMPLOYER PAID STATE UNEMPLOY. INSURANCE	EMPLOYER PAID STATE WORKERS COMP.	
																							1
																							2
																							3
																							4
																							5
																							6
																							7
																							8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

FORM 5 MONTH(S)

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: George Martinez ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

		PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID .11775				EMPLOYER PAID .5437		.5008		
DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	.0751 FICA	STATE WORKERS COMP.	NET PAY	.0751 FICA	.006 FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.	
[illegible]	122							11	25	[illegible] -	27	10.19	[illegible] -			20 [illegible]	3 21		20 [illegible]	1 65	12 [illegible]	13 52	1
[illegible]	121							11	37	418 -	44	9.50	418 -			31 39	5 [illegible]		31 [illegible]	2 51	18 27	22 03	2
[illegible]	314							10	24	240 -	30	8.00	240 -			18 02	3 [illegible]		18 [illegible]	1 44	10 43	15 02	3
[illegible]	313							10	46	460 -	56	8.21	460 -			34 54	6 [illegible]		34 54	2 76	20 10	32 [illegible]	4
[illegible]	212							10	25	250 -	24	10.42	250 -			18 78	2 [illegible]		18 78	1 50	10 93	12 [illegible]	5
Total											181		1643 -			123 38	21 [illegible]		123 38	9 86	71 80	90 63	6
[illegible]	211							10	[illegible]	280 -	44	6.37	280 -			21 03	5 [illegible]		21 03	1 68	12 24	22 [illegible]	7
Total										280 -	44		280 -			21 03	5 [illegible]		21 03	1 68	12 24	22 [illegible]	8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

EMPLOYEE NAME: ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

		PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID				EMPLOYER PAID				
DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.	NET PAY	FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.	
10/2			Harvest Bonus																				1
	122							1.25	25	31 25			31 25										2
	121							1.25	38	47 50			47 50										3
	314							1.25	24	30 -			30 -										4
	313							1.25	46	57 50			57 50										5
	212							1.25	25	31 25			31 25										6
	211							1.25	28	35 -			35 -										7
	Total								186	232 50			232 50			17 [illegible]		215 [illegible]	17 44	1 39	10 16		8
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

FORM 5 MONTH(S)

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: [illegible] ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

	DATE	ENT. #	PRUNING/BRUSH REMOVAL			THINNING			HARVEST			HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID .11??			NET PAY	EMPLOYER PAID			
			RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY					FED. INC. TAX W/HOLDING	.0751 FICA	STATE WORKERS COMP.		.0751 FICA	.006 FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]	[illegible]							[illegible]	[illegible]	[illegible] -	41	[illegible]	385 -			[illegible]	5 [illegible]	[illegible]	[illegible]	2 31	16 [illegible]	22
2	[illegible]	2?1							[illegible]	[illegible]	250 -	30	8.33	250 -			[illegible]	3 [illegible]	[illegible]	17 17	1 50	10 [illegible]	15
3	[illegible]	[illegible]							[illegible]	[illegible]	500 -	56	8.93	[illegible] -			37 55	[illegible]	[illegible]	37 55	[illegible]	21 [illegible]	[illegible]
4	[illegible]	[illegible]							[illegible]	[illegible]	175 -	24	7.42	175 -			14 [illegible]	2 [illegible]	[illegible]	14 [illegible]	1 11	7 [illegible]	12
5										[illegible]	1325 -	154		1325 -			99 50	17 [illegible]	[illegible]	[illegible]	7 [illegible]	51 [illegible]	[illegible]
6	[illegible]	11							[illegible]	21	290 -	44	6.51	290 -			21 [illegible]	5 [illegible]	[illegible]	[illegible]	1 71	2 [illegible]	[illegible]
7										[illegible]	[illegible] -	49		240 -			21 18	5	[illegible]	[illegible]	1 74	12 [illegible]	22
8																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

EMPLOYEE NAME: ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

	DATE	ENT. #	PRUNING/BRUSH REMOVAL			THINNING			HARVEST			HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID			NET PAY	EMPLOYER PAID			
			RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY .					FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.		FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]		HARVEST		BONUS																		
2	[illegible]								[illegible]	35	42 [illegible]			42 [illegible]									
3	[illegible]								1.25	25	31 [illegible]			31 [illegible]									
4	[illegible]								[illegible]	30	[illegible]			[illegible]									
5	[illegible]								[illegible]	17	23 [illegible]			23 75									
6																							
7	[illegible]								[illegible]	21	26 [illegible]			36 5									
8										158	197 [illegible]			197 57			11 [illegible]		18[illegible] 77	14 [illegible]	1 18	8 33	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

FORM 5 MONTH(S)

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: [illegible] ADDRESS: [illegible] S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

			PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID .11[illegible]				EMPLOYER PAID [illegible]			
	DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	.0751 FICA	STATE WORKERS COMP.	NET PAY	FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]	[illegible]							11	25	250 -	27	9.26	250 -			18 [illegible]	[illegible]	[illegible]	[illegible]	1 [illegible]	[illegible]	13
2	9/4	121							11	38	418 -	44	9.50	418 -			31 [illegible]		[illegible]	[illegible]	[illegible]	18 [illegible]	[illegible]
3	9/11	314							10	27	270 -	30	9.00	270 -			20 [illegible]	[illegible]	[illegible]	[illegible]	1 [illegible]	11 [illegible]	[illegible]
4	9/18	313							10	45	450 -	56	8.04				33 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19 [illegible]	24
5	9/25	212							10	20	200 -	24	8.33				15 [illegible]	[illegible]	15 [illegible]	[illegible]	1 [illegible]	8 [illegible]	12
6										155		181					117 [illegible]	21 [illegible]	117 [illegible]	119 [illegible]	[illegible]	61 10	30
7	10/2	211							10	31	310 -	44	7.04				23 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13 [illegible]	22
8										31	310	44	7.04				23 [illegible]	5 [illegible]	[illegible]	[illegible]	1 [illegible]	13 [illegible]	22
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

EMPLOYEE NAME: ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

			PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID				EMPLOYER PAID			
	DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.	NET PAY	FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]		HARVEST	BONUS																			
2		122				1.25	25	31 [illegible]						31 25									
3		121				1.25	38	47 [illegible]						47 50									
4		314				1.25	27	[illegible]						33 75									
5		313				1.25	45	[illegible]						56 25									
6		212				1.25	20	25 -						25 -									
7		211				1.25	31	38 [illegible]						38 75									
8							186	232 [illegible]						232 50			17 16		[illegible]	17 16	1 40	10 16	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

FORM 5 MONTH(S)

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: John Fisher ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

			PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID [illegible]				EMPLOYER PAID [illegible]			
	DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	[illegible] FICA	STATE WORKERS COMP.	NET PAY	[illegible] FICA	[illegible] FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]	121							11 00	43	473 -	44		473 -			[illegible]	5	[illegible]	[illegible]	2 74	26 [illegible]	22
2	[illegible]	313							10 00	51	510 -	56		510 -			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	22 [illegible]	28
3										[illegible]		100		983 -			[illegible]	11	[illegible]	[illegible]	5 10	42 [illegible]	[illegible]
4	[illegible]	211							10 00	38	380 -	44		380 -			22 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16 [illegible]	22
5												44		380 -			22 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16 81	22
6																							
7																							
8																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

EMPLOYEE NAME: Jackie Jones ADDRESS: S. S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

			PRUNING/BRUSH REMOVAL			THINNING			HARVEST							EMPLOYEE PAID [illegible]				EMPLOYER PAID [illegible]			
	DATE	ENT. #	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	[illegible] RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.	NET PAY	FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.
1	[illegible]	[illegible]							[illegible]/1.8[illegible]	27/[illegible]	135 -	27	5 00	135 -			[illegible]	2 [illegible]	121 [illegible]	[illegible]	81	5 [illegible]	13
2	[illegible]	121							[illegible]/1.15	44/[illegible]	220 -	44	5 00	220 -			12 [illegible]	[illegible]	[illegible]	[illegible]	1 32	9 31	22
3	3/11	[illegible]							[illegible]/1.47	30/[illegible]	150 -	30	5 00	150 -			11 [illegible]	2 [illegible]	135 [illegible]	11 [illegible]	90	6 [illegible]	15
4	[illegible]	313							[illegible]/1.17	56/240	280 -	56	5 00	280 -			21 [illegible]	6 [illegible]	[illegible]	[illegible]	1 [illegible]	[illegible]	28
5	[illegible]	212							[illegible]/1.6[illegible]	24/[illegible]	120 -	24	5 00	120 -			9 [illegible]	2	[illegible]	7 [illegible]	72	5 [illegible]	12
6												181		905 -			67 16	21 [illegible]	[illegible]	[illegible]	5 [illegible]	39 [illegible]	[illegible]
7	10/2	211							[illegible]/1.37	44/160	220 -	44	5 00	220 -			16 [illegible]	5 [illegible]	[illegible]	[illegible]	1 32	9 31	22
8														220 -			16 [illegible]	[illegible]	[illegible]	[illegible]	1 [illegible]	9 [illegible]	22
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FORM 6 MONTH(S) AUG/SEPT/OCT.

FEDERAL TAX DEPOSIT SCHEDULE

PAGE 2 YEAR 88

	DATE	UNDEPOSITED				DATE	UNDEPOSITED				DATE	UNDEPOSITED				DATE	UNDEPOSITED			
		FEDERAL INCOME TAX W/HOLDING	FICA		TAX BALANCE		FEDERAL INCOME TAX W/HOLDING	FICA		TAX BALANCE		FEDERAL INCOME TAX W/HOLDING	FICA		TAX BALANCE		FEDERAL INCOME TAX W/HOLDING	FICA		TAX BALANCE
			EMPLOYEE PAID	EMPLOYER PAID				EMPLOYEE PAID	EMPLOYER PAID				EMPLOYEE PAID	EMPLOYER PAID				EMPLOYEE PAID	EMPLOYER PAID	
1	TAX BALANCE PRIV PAGE				0	9/8		34 54	34 54	1144 16	10/2		16 52	16 52	484 02					
2	8/7		16 52	16 52	33 04	9/15		37 55	37 55	1219 26	10/9		9 39	9 39	502 80					
3	8/14		16 52	16 52	66 08	9/15		37 55	37 55	1294 36	10/16		9 01	9 01	520 82					
4	8/21		16 52	16 52	99 12	9/15		38 03	38 03	1370 42	10/23		15 02	15 02	550 86					
5	[illegible]		28 54	28 54	156 20	9/18		21 47	21 47	1413 36	10/30		16 90	16 90	584 66					
6	[illegible]		18 47	18 47	193 14	9/25		18 77	18 77	1450 90										
7	[illegible]		20 95	20 95	235 04	9/25		15 02	15 02	1480 94		Deposit Due By 11/15			584 66					
8	8/28		23 13	23 13	281 30	9/25		18 78	18 78	1518 50					0					
9	[illegible]		10 14	10 14	301 58	9/25		15 77	15 77	1550 04										
10	9/4		33 79	33 79	369 16	9/25		14 27	14 27	1578 58										
11	9/4		31 39	31 39	431 94	9/25		9 01	9 01	1596 60										
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16	9/4		16 52	16 52	714 44	10/2		23 28	23 28	121 66										
17	9/11		18 77	18 77	751 98	10/2		17 46	17 46	156 58										
18	9/11		20 28	20 28	792 54	10/2		21 02	21 02	198 62										
19	9/11		18 02	18 02	828 58	10/2		17 46	17 46	233 54										
20	9/11		17 53	17 53	863 64	10/2		25 54	25 54	284 62										
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FORM 7

UNEMPLOYMENT INSURANCE/WORKERS COMPENSATION - QUARTERLY TOTALS

PAGE 1 YEAR 88

		QUARTER: 1st Jan/Feb./March					QUARTER: 2 April/May/June					QUARTER: 3 July/Aug/Sept					QUARTER: 4 Oct/Nov/Dec				
					STATE					STATE					STATE					STATE	
	EMPLOYEE NAME	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.
1	Previous For Aug.											516	3375 -	20 25	141 11	[illegible]					
2	Louis Ferrera											510	2420 -	20 52	149 15	316 02					
3	Juan [illegible]											181	1598 -	9 53	69 40	112 14					
4	[illegible]											181	1643 -	9 26	71 [illegible]	112 14					
5	Miguel Nieves											181	1642 -	9 86	71 9[illegible]	112 14					
6	Bob Geller											154	1225 -	7 95	57 81	95 4[illegible]					
7	John [illegible]											44	380 -	2 27	16 61	27 24					
8	Anna Marie [illegible]											181	905 -	5 43	37 56	112 14					
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FORM 4 MONTH(S)

PAYROLL - FULL/PART-TIME LABOR

PAGE YEAR

EMPLOYEE NAME: ADDRESS: S.S. #

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

				PRUNING/BRUSH REMOVAL			IRRIGATION			THINNING			CHEMICAL APPLICATION			HARVEST						
	DATE	ENT. #	JOB DESCRIPTION	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	
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FORM 4 MONTH(S)

PAYROLL - FULL/PART-TIME LABOR

PAGE YEAR

ADDITIONAL INFORMATION:

										EMPLOYEE PAID					EMPLOYER PAID					
	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	NET PAY	FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.	MISC. BENEFITS/ HOUSING	
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FORM 5 MONTH(S) /

PAYROLL - SEASONAL LABOR

PAGE YEAR

EMPLOYEE NAME: ______________ ADDRESS: ______________ S. S. # ______________

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

	DATE	ENT. #	PRUNING/BRUSH REMOVAL			THINNING			HARVEST			HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID			NET PAY	EMPLOYER PAID				
			RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY					FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.		FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.	
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EMPLOYEE NAME: ______________ ADDRESS: ______________ S. S. # ______________

BIRTHDATE: BIRTHPLACE: WORK AUTHORIZATION CARD: DATE CHECKED: EXEMPTIONS:

	DATE	ENT. #	PRUNING/BRUSH REMOVAL			THINNING			HARVEST			HRS. WRKD	RATE /HOUR	TOTAL GROSS PAY	HOUSING/ MISC.	EMPLOYEE PAID			NET PAY	EMPLOYER PAID				
			RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY	RATE/ UNIT	# UNITS	GROSS PAY					FED. INC. TAX W/HOLDING	FICA	STATE WORKERS COMP.		FICA	FUTA	STATE UNEMPLOY. INSURANCE	STATE WORKERS COMP.	
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FORM 6 MONTH(S)

FEDERAL TAX DEPOSIT SCHEDULE

PAGE YEAR

		UNDEPOSITED					UNDEPOSITED					UNDEPOSITED					UNDEPOSITED				
			FICA					FICA					FICA					FICA			
	DATE	FEDERAL INCOME TAX W/HOLDING	EMPLOYEE PAID	EMPLOYER PAID	TAX BALANCE	DATE	FEDERAL INCOME TAX W/HOLDING	EMPLOYEE PAID	EMPLOYER PAID	TAX BALANCE	DATE	FEDERAL INCOME TAX W/HOLDING	EMPLOYEE PAID	EMPLOYER PAID	TAX BALANCE	DATE	FEDERAL INCOME TAX W/HOLDING	EMPLOYEE PAID	EMPLOYER PAID	TAX BALANCE	
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FORM 7

UNEMPLOYMENT INSURANCE/WORKERS COMPENSATION - QUARTERLY TOTALS

PAGE YEAR

		QUARTER:					QUARTER:					QUARTER:					QUARTER:				
					STATE					STATE					STATE					STATE	
	EMPLOYEE NAME	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.	HRS. WRKD	GROSS PAY	FUTA	UNEMPLOY INSUR.	WORKERS COMP.
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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

IV. Lesson 4: Developing an Orchard Map and Land Inventory.

A. Review

The previous lesson, Maintaining Payroll Records, should be reviewed. List all conclusions reached in the last meeting. Allow time for a discussion of particular problems encountered in recording receipts and expenditures and payroll. Some possible conclusions from the previous lesson might include:

1. Fruit production is a labor intensive agricultural business.
2. Labor may become an increasingly scarce resource in the future.
3. Hired labor is one of the most highly regulated phases of the orchard business.
4. Payroll records should be categorized by job for business analysis purposes.
5. Using payroll time cards may prove helpful in recording labor records.
6. Many payroll costs may be allocated to a specific enterprise.
7. A record of hours worked must be kept even when workers are paid on a piecework basis.
8. Payroll taxes for all employees should be kept on a Forms 6 and 7 to determine when taxes must be deposited.

B. Objective

To complete an orchard map and an inventory of orchard land.

C. Motivation

Orchard land is the most fixed asset in your operation. The location of this land, soil type, topography and water rights will put limits on each decision you make in your operation. A clear picture of this resource is an important decision making tool for your orchard business.

D. Key Questions

1. How will an accurate orchard map and land inventory help the orchard business?

2. What are some guidelines to be used in developing an orchard map?

3. What are some guidelines in developing and maintaining an inventory of orchard land.

E. Introduction of Information.

1. How will an accurate orchard map and land inventory help the orchard business?

   a. Land is one of the most fixed resources in determining orchard income.

      1) The variables of that resource such as topography, soil type, climate and water rights will place limits on the day to day operation of the orchard as well as long term plans for a given site.

      2) Having a complete account or inventory of this resource is essential to the smooth operation of the orchard business.

   b. Copies made of orchard maps from year to year could include cultural data of specific treatments, problems or location of soil and tissue tests of that year.

   c. Valuing orchard land and its components; trees, buildings and solid set irrigation in the year purchased has a great effect on taxes. This distribution of value will affect both income taxes paid during the depreciable life of the variables and the income taxes paid when the land is sold.

      1) The initial purchase price of a piece of land must be divided among the components of that price; land, trees, buildings and irrigation.

      2) This division can be a valuable tax management tool.

      3) If for example a high percentage of the total cost is placed on depreciable components, such as trees and solid set irrigation, the difference between the purchase price and selling price will be large. This can result in high capital gains taxes.

4) If on the other hand higher value is placed on the land and less on depreciable components. Then higher taxes will result during the ownership years and less incurred when the land is sold.

5) This distribution does not necessarily reflect the fair market value of the land, trees, etc..

d. An orchard map and land inventory (reflecting realistic fair market value) can be very useful in obtaining credit.

1) Orchard maps can help lenders picture your operation as well as help explain future plans for which you may need capital.

2) Land values from the inventory affect your financial statement.

a) Financial statements are a basis by which lenders assess your financial health

b) Realistic fair market values should be used.

e. One method of analyzing profit is returns per acre.

1) These analysis figures are only as good as the accuracy of the acreage determination.

2) Often what is thought to be an acre is miscalculated and what is considered an acre of bearing trees may be less due to missing trees.

f. Having a visual overview of the planting system (spacing, age varieties, root stocks and training) is essential in evaluating the effectiveness of that system and making future plans for a given site.

g. Having an account of the irrigation system can aid in locating strengths and weaknesses of the system as well as aiding in maintenance and repair of the system.

h. Once a complete orchard map has been developed, dividing the operation into specific enterprises is simplified.

i. Orchard maps aid in determining the best method of sampling the orchard for soil and leaf analysis.

2. What are some guidelines used in developing an orchard map?

   Use TM/HO-I/4/1, TM/HO-I/4/2, and TM-8 to go through the process of mapping the sample orchard. Enrollees should use TM/HO-I/4/1 and TM/HO-I/4/2 to complete the orchard map in their Orchard Business Management Record Book.

   a. The complexity of developing any orchard map will directly relate to the diversity of the orchard operation.

   b. A good starting point for developing an orchard map is from a previous survey or plat recorded at the County Assessor's or Auditor's office.

      1) If property was surveyed after 1972 a copy of the survey should be recorded at the County Auditor's office.

         a) Cost for a copy of this survey is $2.00 (in Chelan/Douglas Counties).

         b) It is recommended by the county Auditor's office to go in person to the office to insure the proper survey is obtained.

         c) Take along the legal description of the land or obtain that information from the Assessor's office.

      2) If your land was surveyed prior to 1972 the survey will not be recorded at the county office. In this case you may:

         a) Contact the surveyor listed on the deed or contract to see if they still have a copy.

         b) Contact the county assessor's office where a plat may be obtained. The plat of your property, though not as detailed as the survey, will give a general outline of the property.

   c. Once a survey or plat of the property is obtained transfer this outline to Form 9 (Orchard Map). The size may be increased or decreased using the grid squares as guides. (A trip to the local copy service may prove valuable by having survey reduced or enlarged to fit Form 9.)

      1) Determine a key value for a square depending on the overall size and shape of the site survey or plot.

2) There are 1296 squares to the grid of the Orchard Map (54 columns x 24 rows).

   a) If each square represents 2500 square feet (50'x50') then the map would accommodate most 50 acre orchards (depending also upon shape). (50 x 43,560 sq. ft./acre = 2,178,000 sq. ft./2,500 sq. ft. = 871.2 squares)

   b) If less room is needed try 900 square feet/square (30' x 30') then the map would accommodate most 20 acre orchards (depending also on shape). (20 x 43,560 sq. ft./acre = 871,200/900 = 968 squares)

d. Include all natural and man made boundaries such as irrigation ditches, roadways, buildings and forest lines.

   1) Some field measurements may be necessary to place the location of these boundaries if they are not already included on the survey.

   2) Survey stakes, trees and surveyed boundaries may work as reference points from which other boundaries may be measured.

e. Once the general boundaries are mapped, an accurate tree count should be completed.

   1) The importance of this tree count in the orchard operation cannot be overstated. It will have an effect on every aspect of the record book from depreciation to proper enterprise analysis.

   2) The tree count will serve as a very accurate basis for determining actual producing acres used in the different enterprises.

   3) To inventory trees, record rows by number of trees within the rows.

      a) Spaces between the outside rows and boundaries should be estimated or measured and included on the map.

      b) Large areas of unplanted acreage should be recorded on the map.

      c) The following factors about orchard blocks should be distinguished and included on the orchard map:

(1) Spacing

(2) Age

(3) Commodity

(4) Variety

(5) Rootstocks

(6) Training system

(7) Interplanting Combinations

d) Acreage within blocks may be determined from the tree count/trees per acre at the given spacing. (Refer enrollees to the conversion tables at the front of the record book.)

e) The breakdown of the orchard by cropping characteristics should be done even if it is not included in the enterprise breakdown.

f. If the acreage of a site is large and the plantings diverse it may be wise to divide the overall map into smaller portions. These portions may then be used to make more detailed maps.

1) The divisions should be made along specific crop characteristic lines.

2) Divide the map to the point where individual spacing can correspond to graph lines.

a) For example if each square equals 400 sq. ft. (20" x 20′) a 20 x 20 spacing can easily be distinguished. One map can then hold 6 - 10 acre portions depending on the shape of the block. (400 sq. ft. x 1350 sq. = 540,000 sq. ft. divided by 43,560 = 12 acres total)

b) If this division was made on a 50 acre orchard 5 - 7 sub-maps would be needed, depending upon the shape of these sub-maps.

3) To enlarge the portions of the main map for corresponding sub-maps use the tree spacing and tree count to give a general inline to the map.

a) Convert the square size of the large map to the size of the smaller map to determine distances on boundaries.

b) Draw in and distinguish all divisions on the sub-map for the different crop characteristic blocks.

4) The sub-map areas should be numbered on the main map area and that number transferred to the sub-map.

5) Include all natural and man made boundaries such as irrigation ditches, buildings, wind machines, etc..

6) Include the location and spacing of the irrigation system; the pump, main and laterals lines and head spacing.

7) Other information that may prove helpful on the orchard maps include; location of diverse soil types, frost pockets, specific cultural problems from year to year.

8) Use of multi-colored pencils may prove helpful in distinguishing specific blocks.

9) Copies of the original map should be made each year and used to record yearly notes on the orchard map. The original map should travel to the new record book each year until major changes of the site are made.

10) A helpful tool in planning new plantings on a site is to overlay transparent plastic covers over the existing map on which proposed changes can be drawn on (and erased).

3. What are some guidelines used in developing and maintaining an inventory of orchard land?

Have enrollees turn to Form 10 (Inventory of Land) in the Orchard Business Management Record Book. Using the completed maps on TM/HO-I/4/1, TM-9 and 10 and TM/HO-I/4/2, complete Form 10 for the sample orchard. Have enrollees work along in their record book.

a. Once the orchard maps are complete use them to aid in filling out the inventory of land.

b. Form 10 is designed to record the fair marked value of orchard land from year to year. This form should be carried forward into successive years' record books.

c. The values entered will reflect the fair market value of the whole site. The remaining tax value of the site may also be determined to establish the tax liability if the orchard operation is sold.

d. Columns 3-6 can be used to record the original purchase price of the orchard site.

  1) This value or purchase price will be a useful baseline for establishing the current value of the orchard.

  2) The value placed on depreciable components of the site such as trees, buildings, solid set irrigation and other land improvements can be obtained from the depreciation schedule for the year the land was purchased.

  3) Subtract those amounts (columns 3 and 4) from the total purchase price (column 6) to determine the price of the land in the year purchased.

  4) The original purchase price and value placed on the components of that site are necessary in calculation of contingent tax liability should the property be sold.

e. Next, the fair market value for the property for the current year should be entered.

  1) Fair market value is an estimate of the value of the property.

  2) Fair market value is a very elusive expression.

  3) A common definition would be; "the highest price estimated in terms of money, which a property will bring if exposed for sale in the open market allowing a reasonable time to find a purchaser who buys with the knowledge of all uses to which it is adapted and for which it is capable of being used." (TM-I/4/3).

  4) Stated more simply, it is the price a willing buyer will buy and a willing seller will sell.

  5) Information which will aid in determining the fair market value of your orchard land includes:

    a) The recent appraisal or selling price of the property. Generally the further back this appraisal was made the more it must be tempered by inflation or deflation and improvements to the site.

    b) Comparable values of other similar sites may be useful.

      (1) Estimates should be based on other similar properties in the area.

(2) Temper this with specific factors of your site such as condition of orchard, age, etc..

f. After the fair market value is determined for the total property, distribute that amount among the land, trees, buildings and irrigation.

1) Remember the fair market value of the trees may be quite different from the depreciated value of the trees and buildings.

2) Often times the cost basis of these items seems to add up to more than the total. Compromise to come up with the total.

g. Using the orchard map make a line by line description of the property based on the cropping characteristic mapped out on Form 8.

1) The value of these individual areas need not be recorded.

2) If enterprise designations correspond to these cropping characteristics this line by line description need not be recorded. (As it will be entered on Form 9.)

h. List the enterprise numbers included in the site when the enterprise designation Form 9 is completed.

i. Yearly changes in the Fair Market Value may be small or nonexistent (if no physical changes have taken place). However, Fair Market Value should be evaluated every 3 - 5 years to adjust for inflation or deflation of property value.

F. Group Discussion

Ample time should be allotted in the group discussion to discuss problems anticipated in completing an orchard map and land inventory. Some time should be allowed to discuss current orchard value trends and their relationship to the past and future. Allow enrollees time to complete the Sample Orchard Maps.

Remind enrollees to obtain copies of their property surveys or plats from the County Auditor or Assessor's office before your next orchard visit.

G. Conclusions

1. The variables which make up an orchard site will place limits on the operation of the orchard business.
2. Having a clear picture of "what's out there" in relation to an orchard site is essential to the smooth operation of the business.
3. Orchard maps and inventories are an important tool in obtaining credit.
4. How the initial purchase price of the site is distributed among the components will affect income taxes over the life of the operation.
5. Maps are an important guide in evaluating cropping and irrigation systems.
6. Orchard maps should give complete characteristics of sites including cropping systems, irrigation systems, boundaries, building locations and soil types.
7. Accurate tree counts are the foundation and framework of a good orchard map.
8. The fair market value of a site should reflect what a "willing buyer will pay and a willing seller will accept."
9. The fair market value on the land inventory should be realistic and not used to "pad" the financial statement.

H. On-the-Farm Instructions.

When visits are made during this lesson, take time to walk the orchard with the enrollee, taking along the orchard map. If the orchard map is not yet complete walk the orchard with enrollee and discuss some considerations to record which will be useful in developing the orchard map. Also allow time to assist in getting the land inventory complete. Discuss with the orchardist what considerations were used in spreading that value among the components of the land and how the fair market value was determined.

I. Materials Needed.

Instructor/Enrollees:

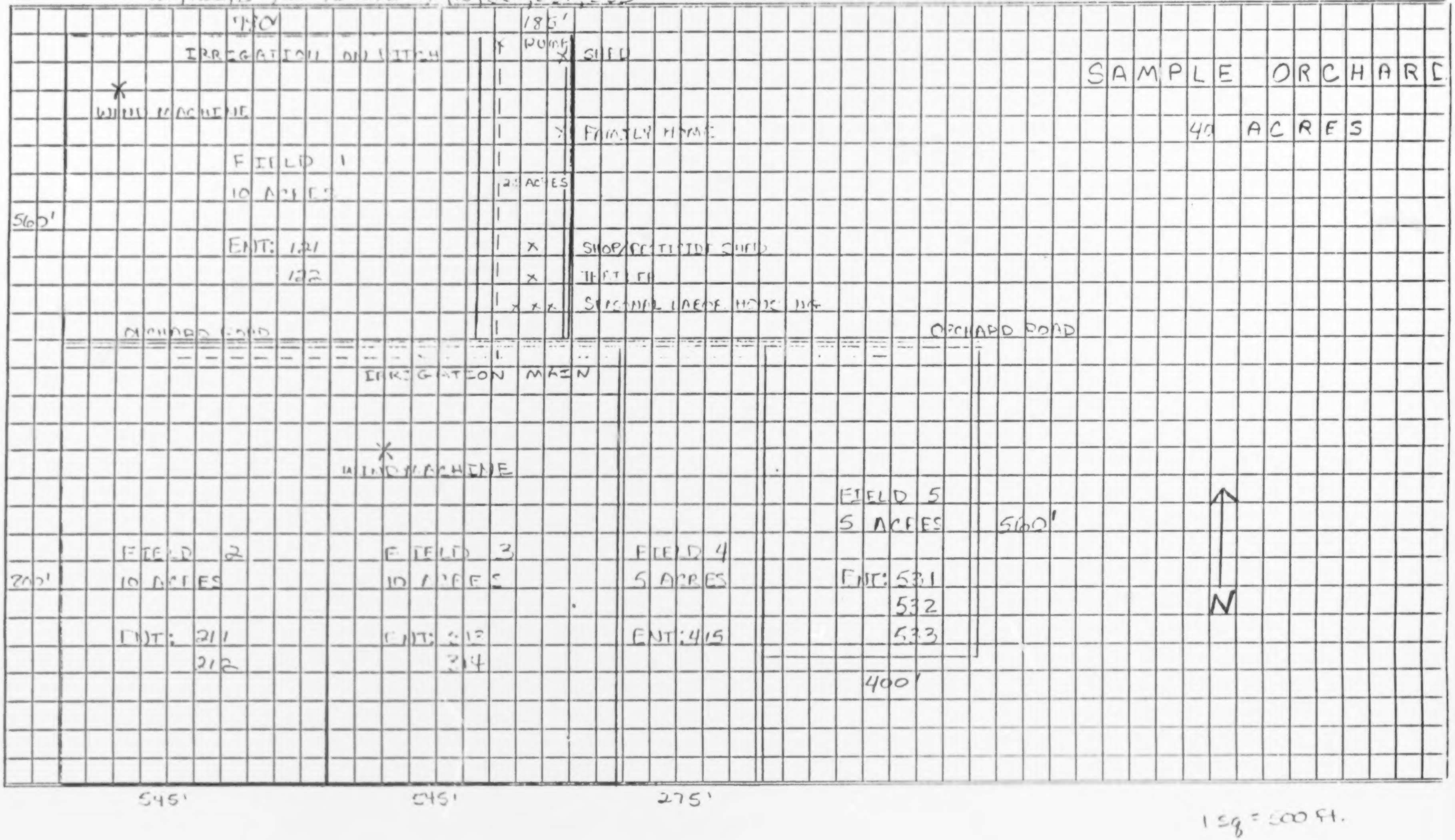
Orchard Business Management Record Book

TM/HO-I/4/1	Sample Orchard Survey
TM/HO-I/4/2	Description of Sample Orchard
TM-8	Orchard Map
TM-10	Land Inventory
TM-I/4/3	Fair Market Value

ORCHARD MAP

FORM 8 ENT #(S): 121, 122, 211, 212, 313, 314, 415, 531, 532, 533

PAGE YEAR

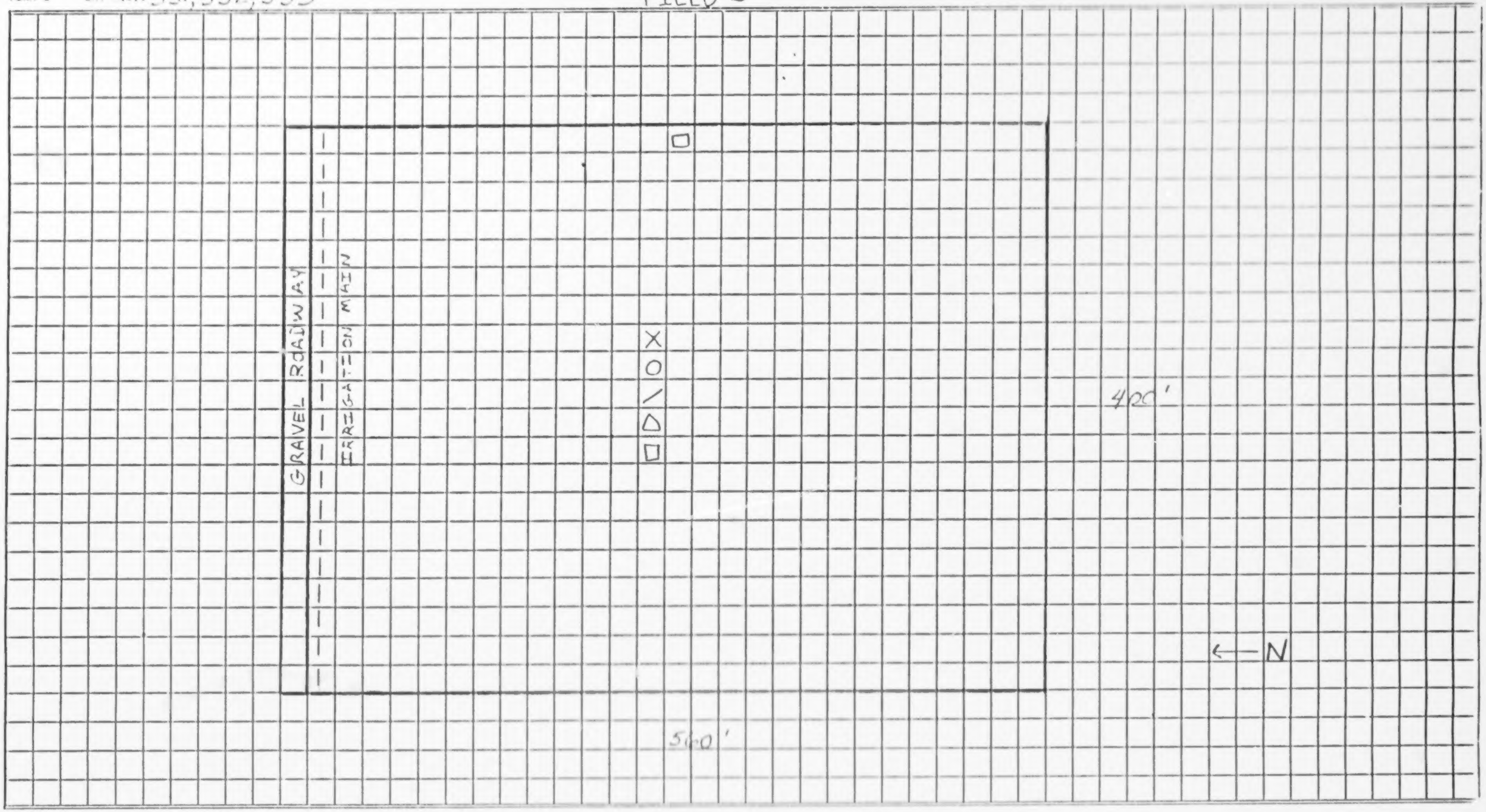

750'
185'
IRRIGATION OR DITCH
PUMP
SHED
WIND MACHINE
FAMILY HOME
FIELD 1
10 ACRES
2½ ACRES
560'
ENT: 121
122
SHOP/PESTICIDE SHED
TRAILER
SEASONAL LABOR HOUSING
ORCHARD ROAD
ORCHARD ROAD
IRRIGATION MAIN
WIND MACHINE
SAMPLE ORCHARD
40 ACRES
FIELD 5
5 ACRES
560'
ENT: 531
532
533
400'
FIELD 2
10 ACRES
ENT: 211
212
FIELD 3
10 ACRES
ENT: 313
314
FIELD 4
5 ACRES
ENT: 415
200'
N
545'
545'
275'
1 sq = 500 ft.

ORCHARD MAP

FORM 8 ENT #(S): 531,532,533

FIELD 5

PAGE YEAR

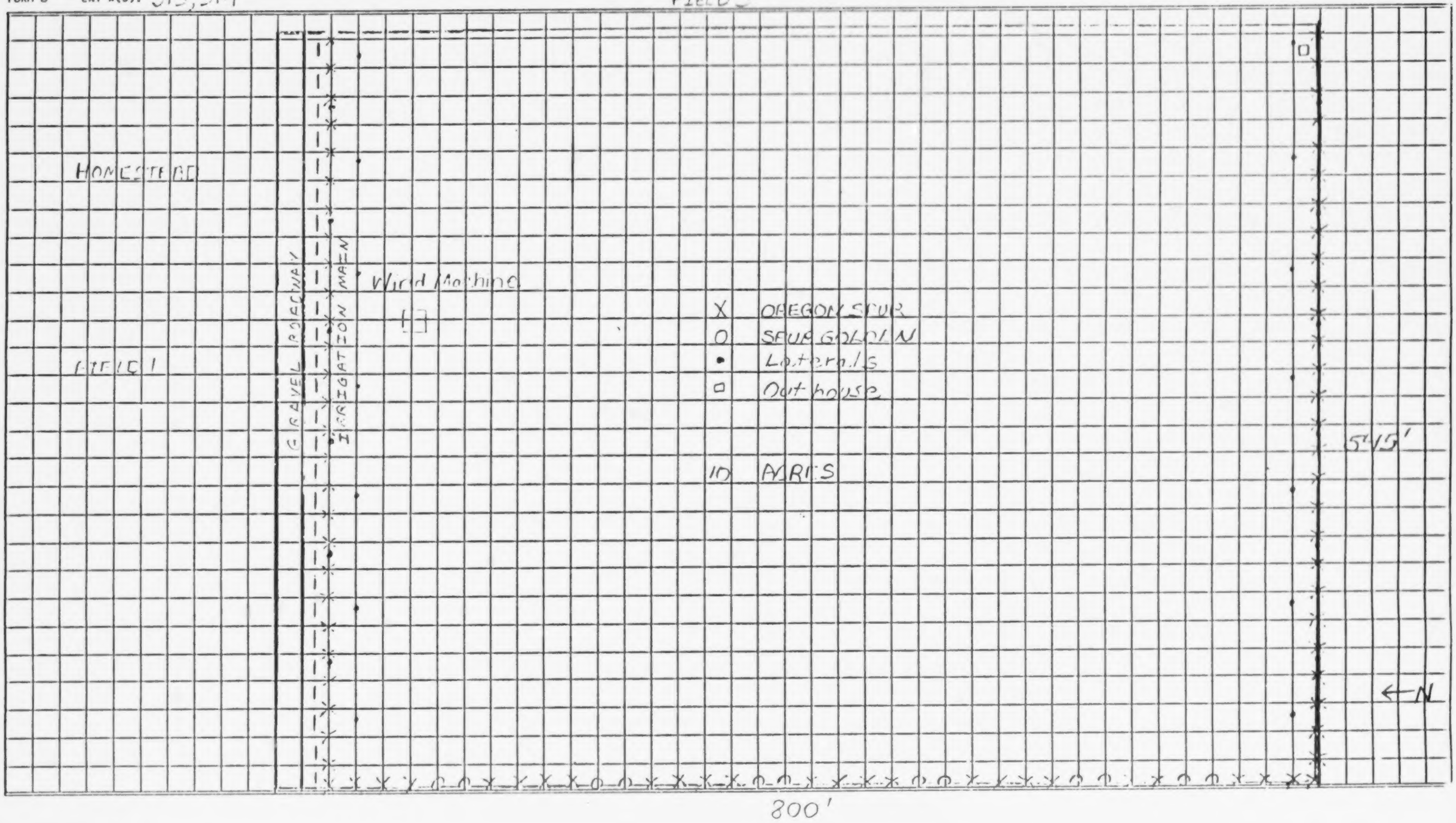

□
GRAVEL ROADWAY
IRRIGATION MAIN
X
O
/
△
□
420'
← N
560'

ORCHARD MAP

FORM 8 ENT #(S): 313,314

FIELD 3

PAGE YEAR

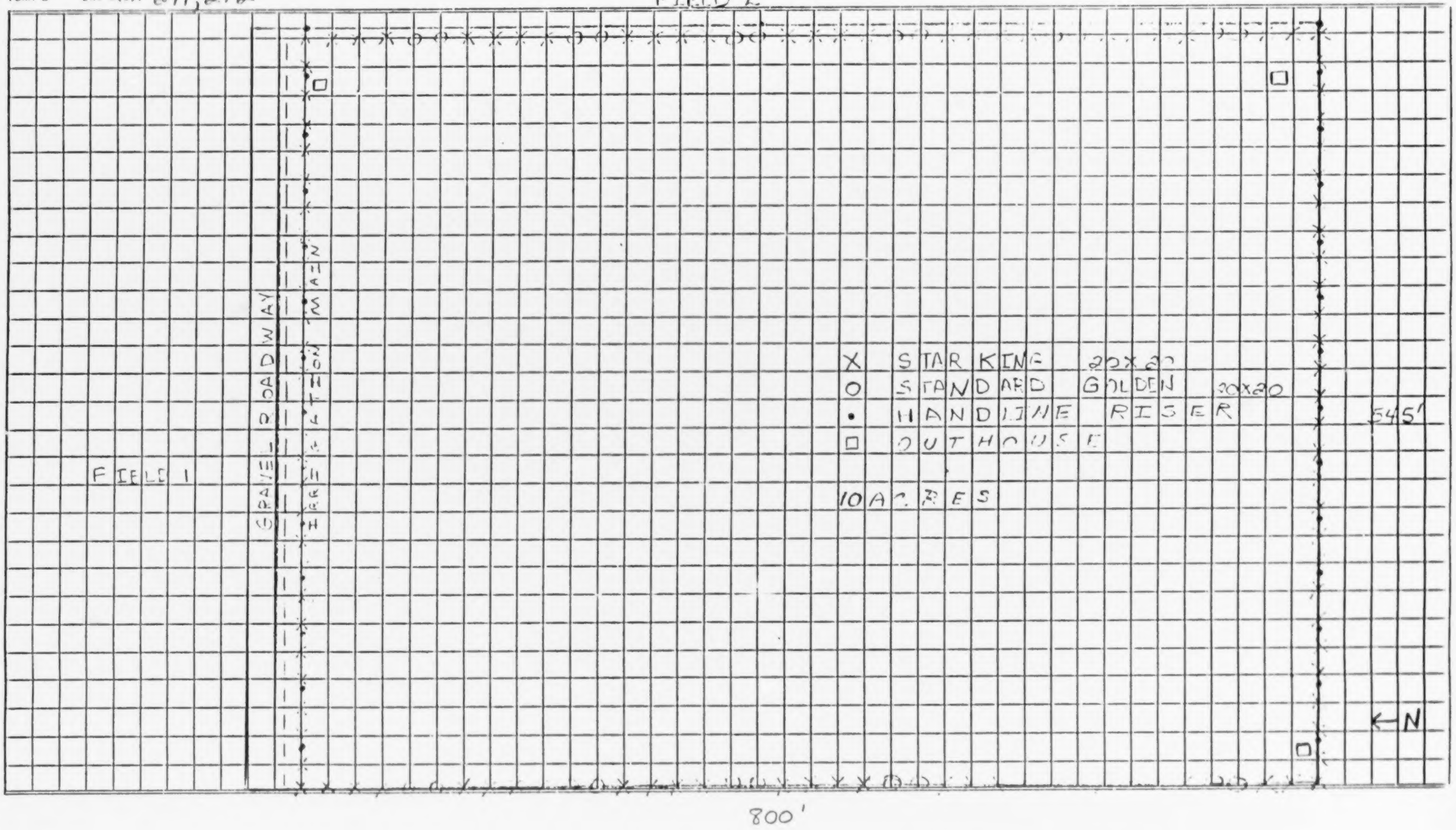

HOMESTEAD
FIELD 1
GRAVEL ROADWAY
IRRIGATION MAIN
Wind Machine
X OREGON SPUR
O SPUR GOLDEN
• Laterals
□ Out house
10 ACRES
545'
←N
800'

ORCHARD MAP

FORM 8 ENT #(S): 211,212

FIELD 2

PAGE YEAR



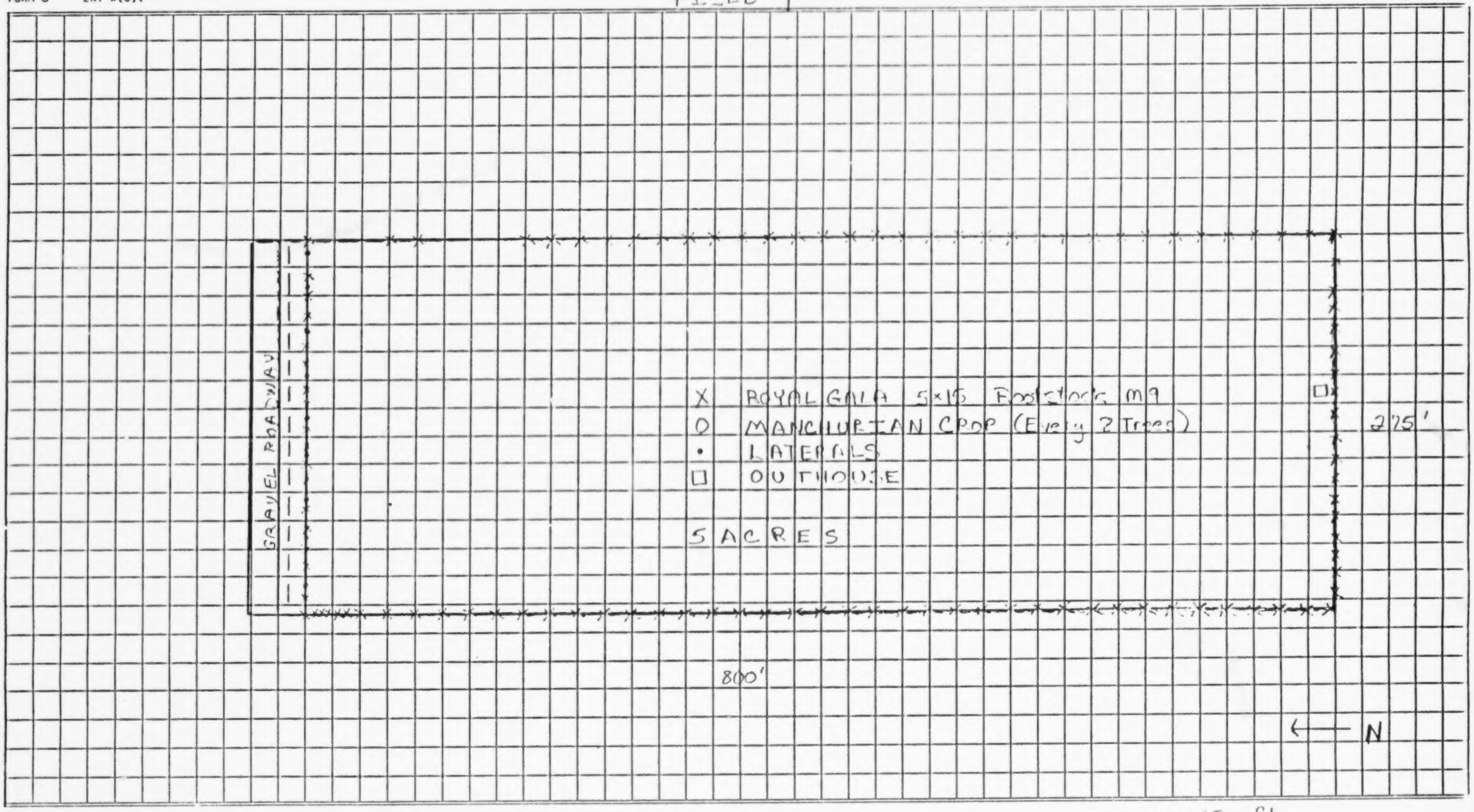
GRAVEL ROADWAY
HARRIGATION MAIN
FIELD 1
X STAR KING 20X20
O STANDARD GOLDEN 20X20
• HANDLINE RISER
□ OUTHOUSE
10 ACRES
545'
800'
←N

ORCHARD MAP

FORM 8 ENT #(S):

FIELD 4

PAGE YEAR


GRAVEL ROADWAY
X ROYAL GALA 5×15 Rootstock M9
O MANCHURIAN CROP (Every 2 Trees)
• LATERALS
□ OUTHOUSE
5 ACRES
275'
800'
← N

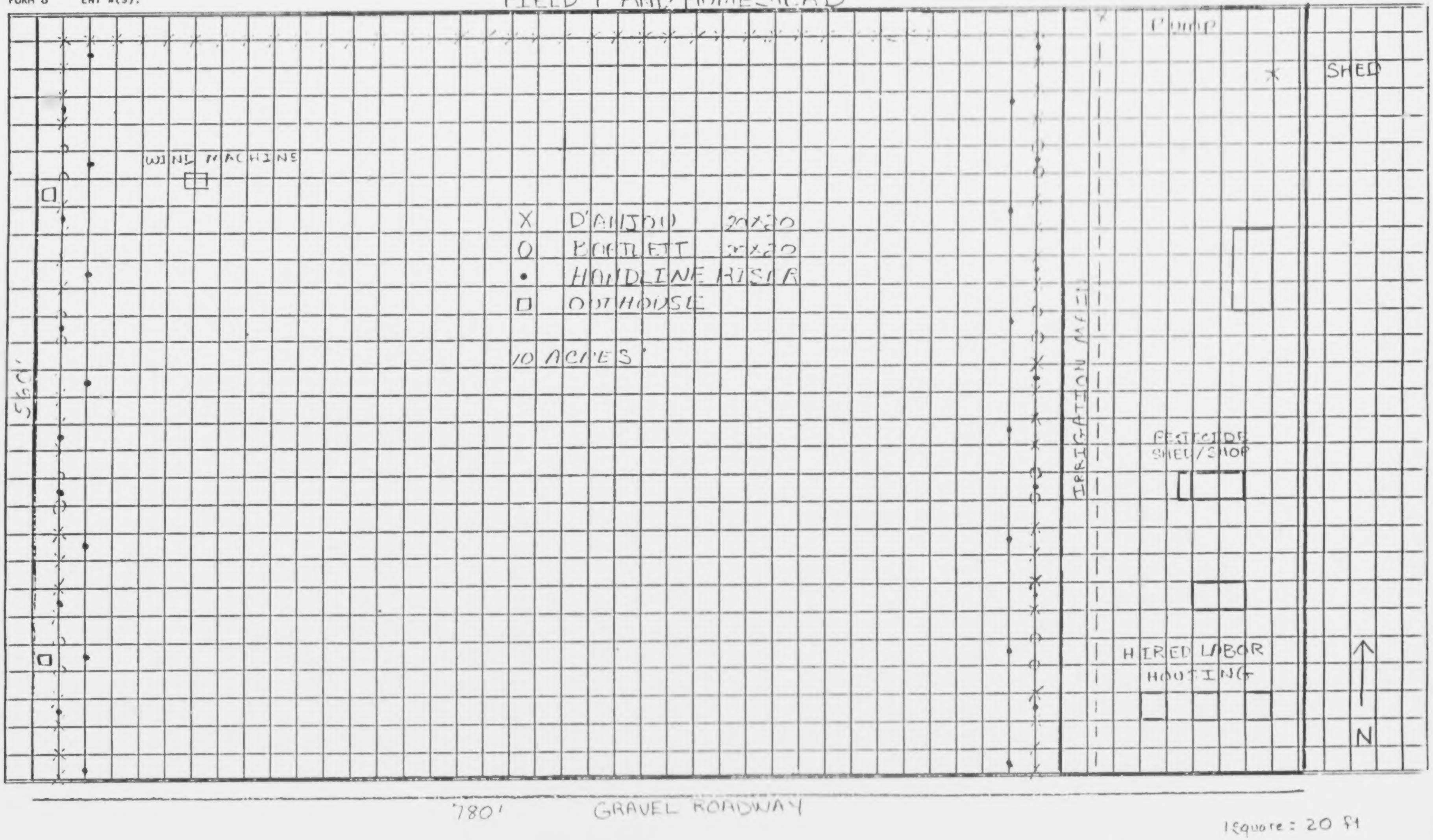
1 square = 15 sq. ft.

ORCHARD MAP

FORM 8 ENT #(S):

FIELD 1 AND HOMESTEAD

PAGE YEAR


Pump
SHED
WIND MACHINE
X D'ANJOU 20x20
O BARTLETT 20x20
• HANDLINE RISER
□ OUTHOUSE
10 ACRES
560'
IRRIGATION MAIN
PESTICIDE SHED/SHOP
HIRED LABOR HOUSING
N
780'
GRAVEL ROADWAY
1 square = 20 ft

TM/HO-I/4/2

DESCRIPTION OF THE SAMPLE ORCHARD

The sample orchard is a 40 acre diversified orchard operation producing pears, apples and cherries. Surprisingly enough all boundaries are a perfectly straight line and the orchard is divided into 5 even acred blocks. These blocks include:

1). D'Anjou/Bartlett Block-1, which is 10 acres. Rows run due east and west. The planting consists of intervals of 4 rows of D'Anjou then 2 rows of Bartletts on a 20 by 20 spacing. There are a total of 108 trees per acre, which results in 7.05 acres of Anjous and 2.85 acres of Bartletts. There is a wind machine in the N. W. area of the block. Irrigation is hand lines with risers located on the east end of the blocks every other row.

2). Starking/Standard Golden Block-2, which is 10 acres. Rows run due east and west. The planting consists of intervals of 4 rows of Starkings then 2 rows of Goldens on a 20 by 20 spacing. There are a total of 108 trees per acre, which results in in 7.05 acres of Starkings and 2.85 acres of Standard Goldens. Irrigation is hand lines and risers are located along the north end of the block.

3.) Oregon spur/Spur Gold Block-3, which is 10 acres. Rows run due east and west. The planting consists of 4 rows of Oregon Spurs then 2 rows of Spur Golds on a 20 by 20 spacing. There are a total of 108 trees per acre which results in 7.05 acres of Oregon Spurs and 2.85 acres of Spur Golds. There is a wind machine in the north central portion of the field. Irrigation is solid set with laterals running north and south and located every other row.

4.) Gala Block-4, which is 5 acres. Rows run north and south. The planting consists of Royal Gala on M9 planted on a 5 by 15 spacing with Manchurian crab planted in rows of Galas every 8 trees (between Galas not replacing the Galas). This results in 580 trees per acre. Irrigation is solid set with microjet emitters. Laterals are located in every other row.

5). Bing/Lambert/Van Block-5, which is a 5 acre block. Rows run East and West. The planting consists of 3 acres of Bings interspersed with Vans as pollinators and 1 acre of Lamberts interspersed with Van pollinators resulting in a total of 1 acre of Vans. The trees are spaced 20 by 20 resulting in 108 trees per acre. Irrigation is by handlines with risers located in the north and of the field every other row.

6). Homestead area is 2.5 acres located at the east end of Block 1. The area includes the pump, pump house, personnal residence, pesticide shed/shop, and hired labor housing including one 20 by 40 ft. mobile home and three 20 by 20 ft seasonal laborers houses.

7). Sanitation facilities are located as follows:

1). One in the northhwest corner and one in the southwest corner of Block 1.

2). One in the southeast corner and one in the southwest corner of Block 2.

3). One in the southeast corner of Block 3.

4). One in the center of the south side of Block 4.

5). One in the center of the east side of Block 5.

FAIR MARKET VALUE IS:

". . . THE HIGHEST PRICE ESTIMATED IN TERMS OF MONEY, WHICH A PROPERTY WILL BRING IF EXPOSED FOR SALE IN THE OPEN MARKET ALLOWING REASONABLE TIME TO FIND A PURCHASER WHO BUYS WITH THE KNOWLEDGE OF ALL USES IT IS ADAPTED AND FOR WHICH IT IS CAPABLE OF BEING USED".

OR

IT IS THE PRICE A WILLING BUYER WILL BUY AND A WILLING SELLER WILL SELL

FORM 10 YEARS

LAND INVENTORY

PAGE

ENT. #	DESCRIPTION	YEAR: 86				YEAR: 87				YEAR: 88				
		FAIR MARKET VALUE				FAIR MARKET VALUE				FAIR MARKET VALUE				
		TREES	IRRIGATION /BUILDINGS	LAND	TOTAL	TREES	IRRIGATION /BUILDINGS	LAND	TOTAL	TREES	IRRIGATION /BUILDINGS	LAND	TOTAL	
121/122	10 Acre Block 7.05A Anjou	14000 00		49000 00	63000 00					14000 00		49000 00	63000 00	1
	4 rows Anj/2 rows Bart 2.85A Bart	6000 00		21000 00	27000 00					6000		21000 00	27000	2
														3
211/212	10 Acre Block 7.05 Stark	10500 00		49000 00	59500 00					10500 00		49000 00	59500 00	4
	4 rows Stark/2 rows Gold 2.85 Std Gold	4500 00		21000 00	25500 00					4500 00		21000 00	25500 00	5
														6
311/312	10 Acre Block 7.05 Org Spur	14000 00	7000 00	49000 00	70,000 00					14000 00	7000 00	49000 00	70000 00	7
	4 rows Org Spur/2 Spur Gold 2.85 Spur Gold	6000 00	2000 00	21000 00	30,000 00					6000 00	2000 00	21000 00	30,000 00	8
														9
21-533	5 Acre Block 2 BINGS	5000 00		21000 00	26000 00					5000 00		21000 00	26000 00	10
	1 Lambert	1500 00		7000 00	8500 00					1500 00		7000 00	8500 00	11
	1 Van	1000 00		7000 00	8000 00					1000 00		7000 00	8000 00	12
														13
415	5 ACRE Block 580 Trees/A 5x15	16658 50	5000 00	40000 00	61658 00					16658 50	5000 00	40000 00	61658 00	14
														15
														16
0	2.5 Acre - [illegible] Labor Housing		9900 00	15000 00	24100 00						9900 00	15000 00	24100 00	17
														18
								Total		[illegible]	[illegible]	300000 00	407658 00	19
														20
														21
														22
														23
														24
														25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	

ORCHARD MAP

FORM 8 ENT #(S):

PAGE YEAR

FORM 10 YEARS

LAND INVENTORY

PAGE

	ENT. #	DESCRIPTION	YEAR: FAIR MARKET VALUE				YEAR: FAIR MARKET VALUE				YEAR: FAIR MARKET VALUE			
			TREES	IRRIGATION /BUILDINGS	LAND	TOTAL	TREES	IRRIGATION /BUILDINGS	LAND	TOTAL	TREES	IRRIGATION /BUILDINGS	LAND	TOTAL
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
	1	2		4	5	6	7	8		10	11	12	13	14

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

V. Lesson 5: Developing and Maintaining Enterprise Records

A. Review

Allow time for a discussion of particular problems encountered by enrollees on recording receipts, expenditures, payroll or in developing an orchard map. The previous lesson, Developing an Orchard Map and Land Inventory should be reviewed. Possible conclusions from the previous lesson might include:

1. The variables which make up an orchard site will place limits on the operation of the orchard business.

2. Having a clear picture of "what's out there" in relation to an orchard site is essential to the smooth operation of the business.

3. Orchard maps and inventories are an important tool in obtaining credit.

4. How the initial purchase price of the site is distributed among it's components (land, trees, buildings, irrigation) will affect income taxes over the producing life of the orchard as well as when the orchard is sold.

5. Maps are an important guide in evaluating cropping and irrigation systems.

6. Surveys or plats of the orchard site are helpful in developing orchard maps. These may be obtained through the county Auditor or Assessor's office.

7. Orchard maps should give complete characteristics of the site including; cropping systems, irrigation systems, boundaries, building locations, soil types.

8. Accurate tree counts are the foundation of a good orchard map.

9. The fair market value of a site should reflect what "a willing buyer will pay and a willing seller will accept."

10. The fair market value on the land inventory should be realistic and not used to "pad" the financial statement.

B. Objective.

To develop enterprise divisions for the orchard operation and correctly enter enterprise records.

C. Motivation.

1. Traditionally, orchard records have been maintained for payroll and as a basis for figuring income taxes at the end of the year. Presently, emphasis is being placed on maintaining detailed records of each enterprise which are analyzed to indicate business progress.
2. Enterprise records are valuable in 2 ways. First they are valuable for determining how profitable each enterprise has been and which enterprises are really supporting the orchard operation. Secondly, good enterprise records can be used to examine efficiency and production factors so improvements can be made.
3. Enterprise records are essential for an inside analysis of the orchard operation.

D. Key Questions

1. How do I separate the various enterprises for an enterprise record and analysis?
2. How can I get records from the field to the office with the correct enterprise designation?
3. What are some guidelines in entering receipts and expenditure entries into the proper enterprise?
4. How are payroll records allocated to specific enterprises?

E. Introduction of Information.

1. How do I separate the various enterprises for enterprise records and analysis?

   Have enrollees turn to the Enterprise Designation Form 9 of the Orchard Business Management Record Book. Use TM-9 and TM/HO-I/4/1 (Description of the Sample Orchard) and the completed map for the sample orchard to demonstrate how this operation might be broken down into enterprises.

a. Enterprise records may be as simple as dividing expenses and returns between apples and pears to the complexity of comparing high density plantings on various rootstocks or with various training systems.

b. The question of "how many enterprises do I need?" should be answered with a compromise between the analysis needed to become more efficient and profitable and the managerial time required and feasibility of entering that information into separate enterprises.

   1) If any enterprise records are maintained, entries from the expenditure and payroll page must be made an additional time whether there are two enterprises or twelve.

   2) On the other hand, the time consumption for each additional enterprise comes from deciding where to draw enterprise lines and in getting the records (payroll, expenses, etc.) from the field to the record book designated to the proper enterprise.

   3) It is important to make realistic decisions about how finite you can allocate expenses

   4) It is best not to be grandiose in the first few years. Better to have good records on a few enterprises than compromised records on 10 enterprises on a 50 acre orchard.

   5) Always ask the question, "so what" of any additional data generated by making an enterprise division (TM-I/5/1).

   6) If you have developed good orchard maps, natural breaks in the operation will become apparent.

c. The Enterprise Designation Form 9 is designed to enter information about different blocks within the orchard and from this form important cropping components are used to designate enterprise numbers.

   1) For each division of the orchard map(s), record that division on a line of the Enterprise Designation Form 9. Make that entry even if that division is not an enterprise itself.

   2) Enter the date the trees were set and a description of the factors of the planting not included on the rest of the form.

   3) Enter the number of acres of trees from the form map.

4) Enter the field and block number if applicable. These numbers may prove helpful in designating areas with specific soil or topographic conditions on the orchard map, or designating blocks of trees of a specific age.

5) In the Commodity column (6 and 7) enter the name of the fruit and designate a code number or letter for that commodity. For example an orchard business having apples, pears and cherries might designate the code 1 = apples, 2 = pears, 3 = cherries.

6) Enter the variety and allocate a code number or letter to designate that variety. For the previous example Golden Delicious apples would be 2, and Red Delicious 1.

7) Enter the rootstock name and allocate a code number or letter to that rootstock if you wish to look at rootstocks as an enterprise designation factor.

8) Enter the name of the training system and give a code number or letter for that system if you wish it as an enterprise designation factor.

9) Wait on entering the enterprise number until all divisions in the orchard are recorded on Form 9.

10) Enter the information about spacing, the number of trees, the irrigation system and the cover crop from the orchard map.

11) It may prove helpful to record one commodity in a group on Form 9 and group within this by age, variety, etc..

d. When Form 9 is completed for each division of the orchard map look for appropriate enterprise breaks some guidelines to help base these breaks are:

1) The most easily recognized and most common break will be between commodities. It is important and relatively easy to keep enterprise records for various commodity groups.

2) The next most important division, for most orchards is varieties. Again enterprise records are relatively easy to divide by varietal blocks.

3) Age is another important variable to screen out in enterprise analysis.

4) Comparisons of rootstocks and various training systems run a close third or forth in range of importance for most orchards.

5) Finally looking at special problems in localized areas may group enterprises. For example looking at soil problems or frost problems and the loss in production may be used as a basis for estimating returns to corrective treatments.

e. After choosing the categories to be used in naming enterprises, combine the numbers of the code to make up a distinct number for each enterprise and enter that number on column 14 of Form 9.

f. This enterprise number may then be used to track all transactions in the record book relating to that number.

2. What are some suggestions for getting records from the field to the office with the correct enterprise designations?

a. Using enterprise records may require some organizational changes in the orchard operation.

1) Better communication skills between the operator/manager foreman, bookkeeper and laborers will be required.

2) Better organizational skills for most labor tasks will be required.

b. When allocating crop receipts to specific enterprises some cooperation from the warehouse may be needed.

1) If the enterprise breakdown for a given operation is fairly specific (such as a breakdown between Red Delicious pruned to central leader and Red Delicious pruned to open center) the packout from the warehouse will not be as specific as the enterprise designation.

2) Many warehouses will cooperate with you on separating harvest to correspond with enterprises.

3) Talk with your fieldmen well before harvest about the prospect of harvesting in a manner which will more closely correspond to the enterprises of your operation.

4) Once the warehouse agrees to harvest in this manner the ball is in the grower's court.

a) Plan the harvest in such a way that enterprise blocks can be maintained.

b) Communicate this plan to the appropriate parties; foreman, swamper, checker, etc..

5) Another method for breaking down receipts into enterprises is from information from payroll cards.

a) If bins harvested are indicated by enterprise, these numbers may be used to allocate quantities picked between 2 like enterprises.

b) These quantities may then be related to the packout to separate returns to specific enterprises.

c) Once again additional managerial time will be required to coordinate this into the harvest routine.

d) Though this method will give a good estimate of the quantities per enterprise it does not address the quality or size affect on crop receipts.

c. These suggestions will help facilitate the allocation of expenditures to specific enterprise from field to office.

1) When purchases of supplies are made take a moment to write down an enterprise number on the receipt beside items which are directly attributed to the enterprise.

2) Chemical and fertilizer applications on similar enterprises can be broken down on a per acre basis using the total quantity applied divided by the acreage of the enterprise.

3) Warehouse charges, like crop receipts, are taken from the packout records and may be handled in one of the two manners described for crop receipts.

d. Payroll cards are the best method for handling enterprise allocations of labor expenditures from the field to the office.

1) Payroll cards should be designed to record tasks by enterprise.

2) Foreman, crew leaders or checkers should be responsible for recording this information on laborers payroll cards.

3. What are some guidelines for allocating expenditure entries into the proper enterprise?

Use the entries made in lesson 2 to demonstrate how these entries are allocated to specific enterprises. Have students use their sample entries in the Orchard Business Management Record Book, made in lesson 2, to work along with the instructor allocating those entries onto Form 3.

a. This record book is designed to hold 16 enterprises. If an orchard operation has more than 16 enterprises, and additional Orchard Business Management Record Book should be purchased. Each book might represent a different commodity.

b. Expenditures other than payroll, should be allocated to the proper enterprise immediately following the items entry onto Form 2.

c. Make certain enterprise numbers from Form 9 (Enterprise Designation) are written on the tops of Form 3 for each enterprise.

d. Enter the month, page and year on the top of each form.

e. Enter the date and form number of the page the entry is from. This will prove a useful tool in referring back to the original entry should a question arise.

f. Columns 21-39 correspond to the columns of Form 2. Enter the item in the appropriate column or columns of Form 3.

g. More than one month's entries will generally fit on the enterprise designation page.

   1) It will be helpful to total entries monthly.

   2) Write those monthly totals in red.

   3) If one month carries over to the next page write the subtotal for the month on line one of the next page. (Write that total in a color other than red.)

h. The sum of the monthly totals for all enterprises of Form 3 should be equal to that month's total for Form 2.

4. How are payroll records allocated to a specific enterprise?

Use the entries made in lesson 3 to demonstrate how these entries are allocated to specific enterprises. Have students use their sample entries in the Orchard Business Management Record Book made in lesson 3, to work along with the instructor allocating those entries on to Form 3.

a. Payroll entries should be allocated to an enterprise on Form 3 immediately following that information being entered on Form 4 and 5.

b. Make sure the enterprise number, month, page and year appears at the top of Form 3.

c. Enter the date and form number of the page the entry is from. This will be a helpful tool in referring back to the original entry, should a question arise.

d. Column 3-18 of Form 3 corresponds to column 4. Enter the item in the appropriate column or columns.

  1) For the purpose of good clean analysis, all units for a given job category should be alike. For example, all entries in the pruning category should be trees.

  2) Conversions should be completed before the entry was made on Forms 4 and 5. If they were not, make that conversion at this time.

  3) Write the unit used at the top of the job category.

e. Column 19 of Form 3 is the sum of columns 31 + 32 + 33 + 36 + 37 + 38 + 39 of Form 4 or Form 5.

f. Monthly totals should be made as for entries made from Form 2.

F. Group Discussion

Sufficient time should be spent in general discussion to ensure all students understand the concepts presented. Encourage enrollees to discuss ideas they may be formulating on dividing their operation into enterprises.

G. Conclusions

1. The Enterprise Designation form (9) is used to make appropriate divisions in the orchard operation.
2. Information for completing the Enterprise Designation form (9) is obtained from the Orchard Maps form (8).
3. The decision of the number of enterprises appropriate for an operation is based on a balance between the analysis needed and the logistics of keeping the records necessary for the analysis.

4. For most orchards cropping characteristics such as commodity, variety, spacing, age, rootstocks, training systems, location, soil type and topographic characteristics are used to designate enterprises.

5. Enterprise numbers are made up of the numbers and letters coding the various planting factors.

6. More managerial time will be required to improve the communication and organization of the operation if enterprise records are to be used.

7. Cooperation and communication between the grower and warehouse will be needed for packouts which will reflect detailed enterprises.

8. Payroll cards are a great aid in getting enterprise records from the field to the office.

9. Allocation of expenditures entries should be made immediately after the entries are recorded on the Distribution of Expenditures and Payroll forms.

10. Nonspecific costs to an enterprise should be entered in the Overhead Enterprise, which will be totaled at the end of the year and distributed to individual enterprises.

11. It may prove helpful to have an overhead enterprise for each commodity group.

H. Orchard Visit

When visiting enrollees following this lesson make sure the Enterprise Designation form (9) is completed from the Orchard Maps. If this form is not complete use your time to assist in its completion. Allow time to discuss with enrollees their reasoning behind the enterprises they have chosen as well as the managerial and organizational changes needed to accurately keep these records. Take time to address any questions which arise about receipts expenditures or payroll records.

I. Materials Needed:

Instructor/Enrollee:

Orchard Business Management Record Book

TM-9	Enterprise Designation
TM/HO-I/4/1	Description of the Sample Orchard
TM-I/5/1	"SO WHAT?"

FORM 9 YEAR(S)

ENTERPRISE DESIGNATION

PAGE

	DATE SET	DESCRIPTION	# ACRES	FIELD #	BLOCK #	COMMODITY		VARIETY		ROOTSTOCK		TRAINING SYSTEM		ENT. #	SPACING	# TREES /ACRE	IRRIGATION SYSTEM	COVER	
						NAME	#	NAME	#	NAME	#	NAME	#						
1	1/61	D'Anjou 4Rows to 2rows of Bartletts	7.05		1	Pear	2	D'Anjou	1	Seedling		Open Center		121	20x21	102	Hand lines	OrchGrass/Clover	1
2	1/61	Bartlett	2.25		1	Pear	2	Bartlett	2	Seedling		Open Center		122	20x21	107	"	"	2
3	1/61	Starking	7.05		2	Apple	1	Starking	1	"		"		211	20x21	"	"	"	3
4	1/61	Standard Gold	2.25		2	"	1	STD GOLD	2	"		"		212	"	"	"	"	4
5	4/76	Oregon Spur	7.05		3	"	1	Org Spur	3	"		"		313	"	"	SS/IMPACT	"	5
6	4/76	Spur Golden	2.25		3	"	1	Spurgold	4	"		"		314	"	"	SS/IMPACT	"	6
7	4/86	Royal Gala	5		4	"	1	Roy. Gala	5	M9		Vert. Axe		415	5x15	580	SS/Microjet	"	7
8	1/62	Bing	3		5	Cherries	3	Bing	1	Mahaleb		Open Center		531	20x20	109	Hand Line	"	8
9	4/62	Lambert	1		5	"	3	Lambert	1	"		"		532	"	109	"	"	9
10	4/62	Van	1		5	"	3	Van	1	"		"		533	"	109	"	"	10
11																			11
12																			12
13																			13
14																			14
15																			15
16																			16
17																			17
18																			18
19																			19
20																			20
21																			21
22																			22
23																			23
24																			24
25																			25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	

FORM 3 ENT #: 121 70% Anjou in 10 Acres **ENTERPRISE EXPENDITURES** MONTH(S) Aug, Sept, Oct PAGE 7 YEAR 88

FROM		HIRED LABOR																		PEST CONTROL	
		PRUNING UNITS:		IRRGATION UNITS: HRS.		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS: BINS		General UNITS: HRS.		UNITS:		UNITS:		EMPLOYER PAID			
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING		
LJ-4	8/7			16.8	84 -																1
[illegible]-4	8/14											14	70 -								2
2	8/20																			674 80	3
LJ-4	8/21			16.8	84 -																4
2	8/21																				5
				33.6	168 -							14	70 -							674 80	6
																					7
IJ-4	9/1									0	450 -										8
JP-4	9/1									38	418 -										9
CM-4	9/1									38	418 -										10
MM-4	9/1									35	385 -										11
PC-4	9/1									35	385 -										12
JF-4	9/1									43	473 -										13
JJ-4	9/1									0	135 -										14
IJ-4	9/11			14	70 -																15
				14	70 -					189	2664 00										16
																					17
4	10/2		(Bonus)							0	182 50										18
										0	182 50										19
																					20
																					21
																					22
																					23
																					24
																					25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 3 ENT. #(S) 121 70% Anjou in 10 Acres

ENTERPRISE EXPENDITURES

MONTH(S) [illegible] PAGE 8 YEAR 22

												WAREHOUSE CHARGES			OTHER EXPENSES			
	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	PACKING/ HANDLING	CROP STORAGE					
1																		
2																		
3																		
4																		
5								115 60										
6								115 20										
7																		
8																		
9																		
10																		
11																		
12																		
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19																		
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22																		
23																		
24																		
25																		
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

FORM 3 ENT #: 122 20% Bartletts on 10 Acres

ENTERPRISE EXPENDITURES

MONTH(S) Aug - Oct. PAGE 7 YEAR 88

	FROM		HIRED LABOR																EMPLOYER PAID			
			PRUNING UNITS:		IRRGATION UNITS:		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS: BINS		General UNITS: HRS.		UNITS:		UNITS:					
	FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING	PEST CONTROL	
1	IJ-4	8/1			72	36 -																1
2	IJ-4	8/14											6	30 -								2
3	J-4	8/21											90	100 -								3
4	2	8/20			72	36 -																4
5	2	8/21																				5
6	IJ-4	8/28									0	280 -										6
7	JR-4	8/28									25	250 -										7
8	GH-4	8/28									25	275 -										8
9	HH-4	8/28									28	308 -										9
10	SJ-4	8/28									0	135 -										10
11					144	72 00					78	1248 00	96	130 00								11
12																						12
13	4	10/2		(P[illegible])							0	97 50										13
14											0	97 50										14
15																						15
16																						16
17																						17
18																						18
19																						19
20																						20
21																						21
22																						22
23																						23
24																						24
25																						25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 3 ENT. #(S) 122

ENTERPRISE EXPENDITURES

MONTH(S) Aug-Oct PAGE 8 YEAR 88

	FERTILIZER /LIME	IRRIGATION ASSESSMENT	UTILITIES	FUEL/ OIL	TRUCK/ AUTO	REPLACE TREES	MACHINERY MAINT.	IRRIGATION /BUILDING MAINT.	TAXES	INSURANCE	INTEREST	WAREHOUSE CHARGES			OTHER EXPENSES			
												PACKING/ HANDLING	CROP STORAGE					
1																		
2																		
3																		
4																		
5								75 00										
6																		
7																		
8																		
9																		
10																		
11								75 00										
12																		
13																		
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18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

FORM 3 ENT #: 212 12% of Apples 25% Blk 2 ENTERPRISE EXPENDITURES MONTH(S) Aug.-Oct. PAGE 7 YEAR 88

FROM		HIRED LABOR																EMPLOYER PAID		PEST CONTROL	
		PRUNING UNITS:		IRRGATION UNITS:		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS:		General Maint UNITS: HRS.		UNITS:		UNITS:					
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING		
LJ-4	8/7											6	30 00								1
LJ-4	8/14			7.2	36 00																2
2	8/20																			87 11	3
LJ-4	8/21			6	30 00																4
																					5
																					6
2	[illegible]																			12 25	7
LJ-4	9/27									0	250 00										8
JB-4	9/27									20	200 00										9
GM-4	9/27									25	250 00										10
MN-4	9/27									21	210 00										11
PG-4	9/28									19	190 00										12
JJ-4	9/28									0	120 00										13
																					14
																					15
14	10/2			(BONUS)						0	106 25										16
																					17
																					18
																					19
																					20
																					21
																					22
																					23
																					24
																					25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 3 ENT #: 212 12% of Apples 70% of Block 2 ENTERPRISE EXPENDITURES MONTH(S) Aug - Oct PAGE 7 YEAR 88

FROM		HIRED LABOR																EMPLOYER PAID			
		PRUNING UNITS:		IRRGATION UNITS: HRS.		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS: BINS		General UNITS: HRS.		UNITS:		UNITS:					
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING	PEST CONTROL	
13-4	8/7											6	30 -								1
13-4	8/14			7.2	36 -																2
2	8/20																			89 11	3
13-4	8/21			6	30 -																4
				13.2	66 -							6	30 -							89 11	5
																					6
2	9/20																			12 24	7
13-4	9/27									0	250 00										8
JR-4	9/28									20	200 00										9
[illegible]-4	9/28									25	250 00										10
MH-4	9/28									21	210 00										11
17-4	9/28									19	190 00										12
55-4	9/28									0	120 00										13
										85	1220 00										14
																					15
14	10/2		([illegible])							0	106 25										16
											106 25										17
																					18
																					19
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																					23
																					24
																					25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 3 ENT #: 313 22% of Apples 70% of Blk 3 **ENTERPRISE EXPENDITURES** MONTH(S): Aug - Oct. PAGE 7 YEAR 88

FROM		HIRED LABOR																EMPLOYER PAID		PEST CONTROL
		PRUNING UNITS:		IRRGATION UNITS:		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS:		General UNITS: Hours		UNITS:		UNITS:				
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING	
2	2/20																			207 73
IJ-4	9/17									0	550 00									
JR-4	9/17									45	450 00									
GM-4	9/18									46	460 00									
MM-4	9/17									48	480 00									
EG-4	9/17									50	500 00									
JF-4	9/17									51	510 00									
JJ-4	9/17									0	220 00									
2	9/20																			28 56
4	1/12									0	221 25									

FORM 3 ENT #: 314 12% of Apple 30% Cik **ENTERPRISE EXPENDITURES** MONTH(S) Aug.-Oct PAGE 7 YEAR 88

FROM		HIRED LABOR																		PEST CONTROL	
		PRUNING UNITS:		IRRGATION UNITS:		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS:		General UNITS: Hours		UNITS:		UNITS:		EMPLOYER PAID			
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING		
2	8/20											6	30 00								1
																					2
																					3
LJ-4	9/11									0	250 00										4
JR-4	9/11									27	270 00										5
GM-4	9/11									24	240 00										6
MM-4	9/11									26	260 00										7
CS-4	9/11									25	250 00										8
JJ-4	9/11									0	150 00										9
																					10
																					11
4	10/2			(BONUS)						0	127 50										12
																					13
																					14
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

FORM 3 ENT #: 415 2% of Apples 10% R/K ENTERPRISE EXPENDITURES MONTH(S) PAGE YEAR

FROM		HIRED LABOR																			
		PRUNING UNITS:		IRRGATION UNITS:		THINNING UNITS:		CHEMICAL APPL. UNITS:		HARVEST UNITS:		UNITS:		UNITS:		UNITS:		EMPLOYER PAID		PEST CONTROL	
FORM	DATE	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	# UNITS	GROSS PAY	EMPLOYMENT TAXES	MISC. BENEFITS/ HOUSING		
2	8/20																			148 50	1
2	8/21																				2
																					3
2	9/20																			20 40	4
																					5
																					6
																					7
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																					25
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

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FORM 9 YEAR(S)

ENTERPRISE DESIGNATION

PAGE

	DATE SET	DESCRIPTION	# ACRES	FIELD #	BLOCK #	COMMODITY		VARIETY		ROOTSTOCK		TRAINING SYSTEM		ENT. #	SPACING	# TREES /ACRE	IRRIGATION SYSTEM	COVER
						NAME	#	NAME	#	NAME	#	NAME	#					
1																		
2																		
3																		
4																		
5																		
6																		
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8																		
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22																		
23																		
24																		
25																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

FORM 9 YEAR(S)

ENTERPRISE DESIGNATION

PAGE

	DATE SET	DESCRIPTION	# ACRES	FIELD #	BLOCK #	COMMODITY		VARIETY		ROOTSTOCK		TRAINING SYSTEM		ENT. #	SPACING	# TREES /ACRE	IRRIGATION SYSTEM	COVER	
						NAME	#	NAME	#	NAME	#	NAME	#						
1																			1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12
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14																			14
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16																			16
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18																			18
19																			19
20																			20
21																			21
22																			22
23																			23
24																			24
25																			25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

I. Lesson 6: Developing a Tree Capitalization and Depreciation Schedule for Orchard Trees.

A. Review

The previous lesson, Developing and Maintaining Enterprise Records should be reviewed. Allow time for a discussion of particular problems encountered in establishing enterprise records. Possible conclusions from the previous lesson include:

1. The Enterprise Designation form (9) is used to make appropriate divisions in the Orchard Operation.

2. Information for completing the Enterprise Designation form (9) is obtained from orchard maps.

3. The decision of the number of enterprises appropriate for an operation is based on a balance between the level of analysis needed and the management time necessary for maintaining records.

4. For most orchards cropping characteristics such as commodity, variety, spacing, age, rootstocks, training systems, location, soil type and topography are used to designate the enterprise.

5. Enterprise numbers are made up of the numbers and letters coding the cropping characteristics.

6. More managerial time will be required to improve the communication and organization of the operation, if enterprise records are to be used.

7. Cooperation and communication between the grower and the warehouse will be needed for packouts which are divided to reflect detailed enterprises.

8. Payroll cards are a great aid in getting enterprise records from the field to the office.

9. Allocation of expenditure entries should be made immediately after the entries are recorded on the Distribution of Expenditures and Payroll form.

10. Non-specific costs (to an enterprise) should be entered in the Overhead Enterprise which will then be distributed to the individual enterprises at the end of the year.

11. It may prove helpful to have an overhead enterprise for each commodity group.

B. Objective

To establish and maintain records for capitalizing expenses and depreciating orchard trees.

C. Motivation

1. The most valuable asset an orchardist has in his business is of course his orchard trees

2. The value of those trees is not static. Over the long run that value will increase and decrease throughout the life of the tree and at some point it will become valueless as that asset approaches it's replacement point.

3. The concepts of capitalization and depreciation of orchard trees take this value change into account and they are important concepts to orchardists for both income tax management and business analysis purposes.

D. Key Questions

1. What determines the value of capital expenditures such as fruit trees?

2. What are some guidelines for maintaining capitalization of expenditures for trees for business analysis purposes?

3. What are some guidelines for establishing and maintaining the Tree Capitalization Schedule for Income Tax purposes?

4. How are fruit trees purchased or coming into production prior to 1981 recorded on the Depreciation Schedule/Inventory form (11)?

5. How are fruit trees purchased or fruit trees coming into production form 1981 through 1986 recorded on the Depreciation Schedule/Inventory form (11)?

6. How are producing fruit trees purchased or fruit trees coming into production after the end of 1986 recorded on the Depreciation Schedule/Inventory form (11)?

E. Introduction of Information

1. What determines the value of capital expenditures such as fruit trees?

   Discuss the concepts behind capitalizing pre-production expenses and depreciation of fruit trees.

   a. Capital expenditures are those costs incurred for the acquisition, improvement and or restoration of an asset having a useful life of more than one year.

   b. The cost of such items is not thought of as occurring in the year purchased but as occurring over a period of years which theoretically represent the useful life of the capital item.

   c. Fruit trees are a capital asset. The value of that capital asset is made up not only of the trees but of the pre-productive improvements to that tree.

      1) The value of a fruit tree is equal to the cost of the tree plus the expenses incurred in bringing that tree into a productive state.

      2) Those pre-production expenses are said to be capitalized and the combination of the cost of the tree plus the capitalized expenses equal the total basis of the tree when it goes into production.

   d. Once the fruit tree goes into production the cost (basis) of this capital expenditure is incurred over the useful productive life of the fruit tree in the form of depreciation.

   e. Depreciation is an allocation of the cost of capital expenses over their useful life.

      1) Depreciation has implications for both business analysis and Income Tax purposes.

      2) For Business analysis purposes:

         a) Depreciation is an expense to the business for the loss of value of the fruit tree due to aging or obsolescence.

b) Depreciation should be based on a realistic assertion of the productive life of an asset.

c) Establishing a realistic depreciation for trees will give a clear picture of:

(1) The Net Worth of the operation

(2) Profit and Loss Statement

(3) When trees may need to be replaced

3) For Income Tax Purposes, life of a tree is calculated as either 7 or 12 years and may be used to aid in tax management through income leveling techniques.

2. How are capitalization records maintained for business analysis purposes?

a. An orchardist should maintain a record of expenses going into the pre-productive phase of trees for business anaylysis purposes.

b. If this is the case these pre-production expenses may easily be separated for business analysis by separating newly established blocks of trees into separate enterprises.

c. Entry of expenses on Form 2 would be entered in the total cost column and again in column 30 (for income tax purposes).

d. Next turn to the appropriate enterprise on Form 3 and enter in the appropriate cost category.

e. At the end of the year total all the expenses for this new planting enterprise and add to the previous fair market value to establish this year's fair market value.

3. What are some guidelines for establishing and maintaining the Tree Capitalization Schedule for Income Tax purposes?

Have enrollees turn to form 11 of the Orchard Business Management Record Book. Use TM-11 and TM/HO-6/1 to demonstrate how new orchard plantings are recorded on Form 11 for income tax purposes.

a. Flexibility is no longer afforded orchardists in handling capitalized pre-production expenses for income tax purposes.

1) All pre-production expenditures for new plantings must capitalized.

a) Previously these expenses could be deducted. They were written off in the year they were paid (cash accounting) or incurred (accrual accounting).

b) Now these expenses must be capitalized. They accumulate over the pre-productive life of the orchard where (along with the price of the tree) they will form a basis which will be depreciated when the orchard comes into production.

c) Almost all expenses directly related to the production of a new block must be capitalized.

b. For ease of segregating capitalized expenses for pre-production blocks, these blocks should be maintained as distinct enterprises.

c. Enter non-production blocks in the following manner:

1) Enter the date planted and the enterprise number.

2) Information in the item description might include cultural treatments for planting.

a) If replant treatments were applied in the previous year record that amount here.

b) Be specific to the treatment applied.

3) Enter the number of acres planted. If the block is interplanted into established planting the new planting should still be maintained as a separate enterprise.

4) Enter the number of trees in the enterprise.

5) Enter the cost per tree.

6) Capitalized expenses in planting might include; soil treatments, fumigation, fertilizer incurred in the year prior to planting the trees.

7) Total basis equals columns 7 and 8.

8) Enter the years across the top of the column.

9) If you have more than one location of young trees you must have those locations allocated to an enterprise.

10) Enter expenses incurred for these blocks on Forms 2 and 3 as described in the section on capitalizing trees for business analysis purposes.

11) At the end of the year add up all of the Capitalization production expenses from each pre-production enterprise. This should be equal to the yearly total for column 30 on Form 2.

12) Enter that total on column 10 of Form 11 for that year.

13) Add the total capitalized expense (11) to the previous year's total basis 9 or 11 (if the previous is the first year) and enter that amount on column 11 for the current year.

14) Follow these procedures for each successive year.

15) Remember to use Farm Market Value to keep a record of all production cost capitalized for business analysis purposes.

16) Form 11 is designed to move forward to next year's record book and plantings made in different years may be contained on the same page.

4. How are trees purchased or coming into production prior to 1981 recorded on the Depreciation Schedule/Inventory.

Have enrollees open their Orchard Business Management Record Book to forms 12. Using TM-12 and TM/HO-6/1 demonstrate how trees purchased or producing prior to 1981 are added to Form 12.

a. For orchards purchased or coming into production prior to 1981 it will be necessary to refer to the previous depreciation schedules or income tax returns to determine the useful life and method used to calculate depreciation.

b. Start the schedule with the oldest trees in the operation and work forward to subsequent years.

c. If trees are depreciated out (tax wise) they should still be recorded on the depreciation schedule as follows:

   1) Enter the date set and the date the block was purchased or came into production.

2) Enter the enterprise number or numbers if applicable.

3) The item description might include cultural specifics of the block if it is not a distinct enterprise (included on the enterprise designation form).

4) Enter the number of acres, trees per acre and total basis of the trees.

5) Enter the Fair Market Value in column 22 of the current year.

d. For trees which still have a depreciable value record on the depreciation schedule as follows:

1) Enter the date set and the date the block was purchased or came into production.

2) Enter the enterprise number or numbers if applicable.

3) The item description might include cultural specifics of the block if applicable.

4) Enter the number of acres, trees/acre, and the total basis.

5) Place a check in the investment credit column if investment credit was taken. This becomes important if the orchard is sold before it is depreciated out and investment credit must be recaptured.

6) Enter the Remaining Book Value of the previous year on column 14.

7) The straight line method was often used for orchard trees planted prior to 1981. In this method the balance for regular depreciation was divided by the number of years of useful life.

a) The amount depreciated should be the same for each year depreciation was taken.

b) Enter SL in the Method column 16.

c) Enter the year of life in the Life column 15.

d) Enter the dollar amount of the current year's depreciation in column 20 of form 12.

e) Subtract this amount from column 14 and enter in column 21 of the current year.

8) Estimate the fair market value of the trees, for business analysis purposes and enter in column 22.

9) Either skip some line between these trees and those purchased between 1981 and 1985 or place the next major grouping of trees on a new page.

5. How are fruit trees purchased or coming into production from 1981 to 1985 recorded on the Depreciation Schedule/Inventory for Trees form (12).

Continue using TM-12A and 12B and TM/HO-6/1 to demonstrate how trees purchased or producing between 1981 and 1985 are added to forms 12A and 12B. Have enrollees work along making entries in their Orchard Business Management Record Book.

a. Orchards purchased or placed into production in 1981 through 1985 fall into the Accelerated Cost Recovery System (ACRS) method of cost recovery.

b. Start the schedule with the oldest trees in the operation and work forward to subsequent years.

c. Trees which are depreciated out (tax wise) should still be recorded on the depreciation schedule as follows:

1) Enter the date set and the date the block was purchased or came into production.

2) Enter the enterprise number or numbers if applicable.

3) The item description might include cultural specifics of the block if it is not a distinct enterprise (included on the enterprise designation form).

4) Enter the number of acres, trees per acre and total basis of the trees.

5) Enter the Fair Market Value in column 22 of the current year.

d. For trees which still have a depreciable value use of the previous depreciation schedule or tax returns may aid in filling out form 12.

e. Leave lines between each year's entries on the depreciation schedule.

f. Under the ACRS method of cost recovery trees fall into the 5 year category group and are subject to one of 2 methods of depreciation.

g. Fill out the depreciation as follows:

1) Enter the year set, the year purchased or producing and the enterprise number or numbers (if applicable).

2) Enter a brief description which might include cultural specifics of the block if applicable.

3) Enter the number of acres, trees/acre, cost per tree and total cost of the trees.

4) Enter the total capitalized production costs. (If any costs were capitalized.)

5) Enter the Total Basis which is equal to the total cost of trees plus the total capitalized production costs. (8 + 9)

6) If investment credit was taken the amount should be entered here for reference to recapture rules. Investment credit for trees would either be 10% (in which case the basis of the property was reduced by 1/2 the investment credit) or 8% in which case the total basis would not be reduced.

7) Check previous depreciation record and see if any expense election was taken on trees and record that amount in column 11.

8) The balance for regular depreciation will either be:

a) 9 - 1/2 10 - 11 = 12 (If 10% investment credit was taken) or

b) 9 - 11 = 12 (If 8% investment credit was taken).

9) Prior depreciation column (13) need not be entered for ACRS method.

10) The life and method must be determined from previous depreciation records and will be one of the following 2 methods.

a) ACRS methods in which the item is depreciated over 5 years.

   (1) To determine the current year's depreciation multiply the balance for regular depreciation column 12 by one of the following percentages depending on the year.

   (2) 1st year = 15%
   2nd year = 22%
   3rd through 5th year = 21%

   (3) If this has been the method used enter 5 in column 16, ACRS in column 15.

   (4) Enter the % from the table into column 19 of the current year.

   (5) Multiply 19 for the current year times 12 and enter in column 20 for the current year.

b) Alternate ACRS method in which the item life is either 5, 12 or 25 year property.

   (1) Look at the previous depreciation schedule to determine what years of life were used.

   (2) Enter that in column 16 and ACRSL in column 15.

   (3) To determine the current year's depreciation divide 12 by 16 and enter that amount in column B of the current year.

   (4) Under the alternate straight line method only half of the first year's depreciation was allowed so 5 year life takes 6 years to depreciate 12 takes 13 years and 25 takes 26 years. In other words the last year of depreciation will also be 1/2 the normal depreciation.

11) Enter the remaining book value in column 21.

12) Subtract column 20 for the current year from the Remaining Book Value for the previous year and enter in the Remaining Book Value for the current year.

13) Enter the fair market value for business analysis purposes in column 22.

6. How are purchased fruit trees or ones coming into production after the end of 1986 recorded on the Depreciation Schedule/Inventory forms 12.

   Continue using TM-12 and TM/HO-I/6/1 to demonstrate how trees purchased or producing after the end of 1986 are recorded on forms 12. Have enrollees work along making entries in their Orchard Business Management Record Book.

   a. Orchard purchased or placed into production after the end of 1986 fall under the rules of the Modified Accelerated Cost Recovery System (MACRS).

   b. This method is designed as an effort to "simplify" the current tax system.

   c. Orchard trees fall under the 7 year property classification and are depreciated using one of two methods.

   d. Entries are made as follows:

      1) Enter the date set and the date producing.

      2) Enter the enterprise number or number(s) if applicable and a brief description.

      3) Enter number of acres, trees/acre, total cost of trees and total capitalized costs (if applicable).

      4) Enter the total basis (column 7 and column 8).

      5) Investment credit is no longer allowed.

      6) Expense election or section 179 deduction can be up to $10,000 for all items depreciated after 1986. This amount may be taken on one item or on the accumulation of this amount over several items.

      7) The balance for regular depreciation is equal to 9 - 11.

      8) Prior depreciation is designed to enter the total depreciation of items added to the depreciation schedule after some depreciation is taken.

      9) The Remaining Book Value equals 12 - 13.

      10) Life and method will be one of the following:

         a) If the regular MACRS method is used the life will equal 7 and enter MACRS in column 16.

b) If the alternate MACRS is used enter 12 in Life column 15 and MACRSL in column 16.

11) Under the modified cost recovery system only 1/2 or in some cases a percentage of the depreciation is taken in the first year. Use the following guidelines to determine which one to use.

a) The 1/2 year convention is normally used unless;

b) Property placed in service in the last 3 months of the tax year exceeds 40% of the aggregate basis of all property placed in service in which case the 1/4 convention is used.

c) This particular rule is designed to discourage the traditional tax management tool of purchasing many capital items to offset a high income year.

d) If 1/4 convention is used the percentage taken the first year will be:

Quarter	Percentage
1st	87.5%
2nd	62.5%
3rd	37.5%
4th	12.5%

e) Enter the appropriate percentage in column 17.

12) If MACRS method is used the depreciable percentage will equal 28.6% (1/7 x 2) for all years but year 1 and year 8. That percentage will be equal to column 17 x column 18.

a) Enter 28.6% in column 19 of years 2 - 7.

b) Multiply the percentage times the remaining book value of the previous year and enter that amount in column 20 for the current year.

c) Subtract column 20 for the current year from the Remaining Book Value of the previous year and enter in column 21 for the current year.

13) If the alternate MACRS method is used the depreciable percentage will equal 8.67% (1/2) of the balance for regular depreciation.

a) Enter 8.67% x column 18 and column 19 for years 2 - 12.

- b) Enter 8.67% x column 19 x column 12 and enter on column 20 of year 1.
- c) Year 13 depreciation will equal the remaining book value of the previous year.
- d) Subtract column 20 for the current year from the Remaining Book Value of the previous year and enter in column 21 for the current year.

14) Determine the Fair Market Value for business analysis purposes in column 22 of the current year.

F. Group Discussion

Sufficient time should be allotted to allow enrollees time to direct questions about capitalization of pre-production expenses and depreciation of fruit trees. Encourage a discussion of how the new tax law will affect after tax income.

G. Conclusions

Possible conclusions which might be reached include:

1. Capital expenditures are those costs incurred for the acquisition, improvement and or restoration of an asset having a useful life of more than one year.
2. Fruit trees are capital assets and thus value is made up of the purchase price of trees plus the pre-productive improvements to that tree.
3. The costs of fruit trees are incurred over the useful production life of the tree in the form of depreciation.
4. Capitalization of production expenses and depreciation of fruit trees have implications for both business analysis and income tax purposes.
5. Often the legal life of a tree for cost recovery does not reflect the realistic life of a capital asset.
6. Form 11 is designed to keep a yearly account of capitalized production expenses and tree value to determine the basis for cost recovery for depreciation.
7. New plantings should be maintained in distinct enterprises for ease of capitalizing expenses for both business analysis and income tax purposes.

8. For orchards purchased or coming into production between 1981 and 1986 the Alternate Cost Recovery System was used. One of 2 methods was applicable to orchards and cost recovery took place over 5, 12, or 25 years.

9. For orchards purchased or coming into production after 1986 the Modified Cost Recovery System was used. One of 2 methods is applicable to orchards and cost recovery takes place over 7 or 12 years.

H. Orchard Visit.

Time spent on visits following this lesson should help enrollees complete their depreciation schedules and capitalization record for trees. Go over old depreciation schedules and make sure the information is transferred properly to the new forms. Spend time discussing ways to determine fair market value for orchard trees. Address any questions pertaining to payroll, receipts or expenditure entries.

I. Materials Needed.

Instructor:

Orchard Business Management Record Book

TM/HO-I/6/1	Sample Entries for Tree Capitalization Schedule
TM-11	Capitalization Record/Inventory - Pre-Producing Trees
TM-12	Depreciation Schedule/Inventory - Producing Trees.

TM/HO-I/6/1

SAMPLE ENTRIES FOR TREE DEPRECIATION - CAPITALIZATION RECORD

The following information can be used along with the Enterprise Designation form to complete a Capitalization Record/Inventory and Depreciation/Inventory for Trees.

1.) In 1986 the orchardist planted a 5 acre block to Royal Gala. This planting is on a 5' x 15' spacing. The cost of each tree was 4.85 and 4000.00 was spent on replant treatments. The expenses which were capitalized for this block were 4365.00 in 1987 and 4269.00 in 1988.

2). The D'Anjou/Bartlett block was planted in 1969 and started producing in 1976. The block is on a 20 x 20 planting. Trees cost 1.25 each. The trees are now depreciated out. The grower estimates the fair market value of the trees to be 2000.00 per acre.

3). The Starking/Golden block was planted in 1969 and started producing in 1976. Trees are on a 20 x 20 spacing. Trees cost 1.25 each. The block is depreciated out. The grower estimates the fair market value of the trees to be 1500.00 per acre.

4). The Oregon Spur/Spur Golden block was planted in 1976 and started producing in 1981. Trees are on a 20 x 20 spacing. Trees were purchased for 2.00 per tree. The trees were depreciated using the straight line method over 15 years the remaining book value in 85 was 609.07 for the Reds and 246.24 for the goldens.

5). Bing/Lambert/Van block was planted in 1962 and started producing in 1969. Trees were purchased for 1.25 each. The planting is on a 20 x 20 spacing. The block is depreciated out and the grower estimates the fair market value to be 1500.00 per acre.

FORM 11 YEAR(S)

CAPITALIZATION RECORD/INVENTORY PRE-PRODUCING TREES

PAGE

DATE SET	CNT. #	DESCRIPTION	# ACRES	# TREES/ ACRE	COST/ TREE	TOTAL COST TREES	CAPTL'Z EXPENSES	TOTAL BASIS	YEAR: 87 CAPTL'Z EXPENSES	YEAR: 87 TOTAL BASIS	YEAR: 87 FAIR MARKET VALUE	YEAR: 87 CAPTL'Z EXPENSES	YEAR: 87 TOTAL BASIS	YEAR: 87 FAIR MARKET VALUE	
4/26	415	5A Block Royal Gala/M9 5'x15' w/[illegible]	4.25	580	1 50	12658 50	4000 00	16658 50	4365 –	21023 50	24000 00	4189 00	25212 50	24000 00	1
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ORM 12 YEAR(S) 86/87/88

DEPRECIATION SCHEDULE/INVENTORY - PRODUCING TREES

PAGE 1

									ITEMS PURCHASED PRIOR TO 1985			ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		
DATE SET	DATE PROD.	ENT. #	DESCRIPTION	ACRES	TREES/ ACRE	TOTAL COST TREES	TOTAL CAPTL'Z COSTS	TOTAL BASIS	INV. CREDIT	EXP. ELEC.	BALANCE FOR REG. DEPREC.	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	
1/69	1/76	121	D'Anjou - Block 1	7.05	108	951 75	–	951 75				951 75	0 –					1
1/69	1/76	122	Bartlett - Block 1	2.85	108	384 75	–	384 75				384 75	0 –					2
1/69	1/76	211	Starking - Block 2	7.05	108	951 75	–	951 75				951 75	0 –					3
1/69	1/76	212	[illegible] Golden Block 2	2.85	108	384 75	–	384 75				384 75	0 –					4
1/62	1/69	531	Bings - Block 5	3	108	405 00	–	405 00				405 00	0 –					5
1/62	1/69	532	Lambert - Block 5	1	108	135 00		135 00				135 00	0 –					6
1/62	1/69	533	Van - Block 5	1	108	135 00		135 00				135 00	0 –					7
1/76	1/81	313	Oregon Spur - Block 3	7.05	108	1713 00		1713 00				1103 93	609 07	15	SL			8
1/76	1/81	314	Oregon Spur - Block 3	2.85	108	692 55		692 55				446 31	246 24	15	SL			9
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FORM 12 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - PRODUCING TREES

	YEAR: 86				YEAR: 87				YEAR: 88				YEAR:			
	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE
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5		–	–	4500 00		–	–	4500 00			–	4500 00				
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7		–	–	1500 00		–	–	1500 00		–	–	1500 00				
8		114 20	474 87	17625 00		114 20	380 67	17625 00		114 20	266 47	17625 00				
9		46 17	200 07	7125 00		46 17	153 90	7125 00		46 17	107 73	7125 00				
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FORM 12 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - PRODUCING TREES

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FORM 12 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - PRODUCING TREES

PAGE

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FORM 11 YEAR(S)

CAPITALIZATION RECORD/INVENTORY PRE-PRODUCING TREES

PAGE

										YEAR:			YEAR:			
	DATE SET	ENT. #	DESCRIPTION	# ACRES	# TREES/ ACRE	COST/ TREE	TOTAL COST TREES	CAPTL'Z EXPENSES	TOTAL BASIS	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	
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FORM 11 YEAR(S)

CAPITALIZATION RECORD/INVENTORY PRE-PRODUCING TREES

PAGE

	YEAR:			YEAR:			YEAR:			YEAR:			YEAR:			YEAR:			
	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	CAPTL'Z EXPENSES	TOTAL BASIS	FAIR MARKET VALUE	
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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

II. Lesson 7: Developing and Maintaining a Depreciation Schedule/Inventory for Machinery, Equipment and Buildings.

A. Review

The previous lesson, Developing a Tree Capitalization and Depreciation Schedule/Inventory for Orchard Trees should be reviewed. Allow time to address particular problems encountered in establishing these schedules. Conclusions from the previous lesson include:

1. Capital expenditures are those costs incurred for the acquisition, improvement and or restoration of an asset having a useful life of more than one year.
2. Fruit trees are capital assets and their value is made up of the purchase price of the trees plus the pre-productive improvements to that tree.
3. The cost of capital expenditures is incurred over the useful life of that capital asset.
4. Capitalization of production expenses and depreciation of fruit trees have implications for business analysis and income tax purposes.
5. Often the "legal life" of a capital asset for income tax purposes does not reflect a realistic life of a capital asset.
6. Some flexibility in cost recovery is available to aid in tax management.
7. New plantings of orchards should be maintained in distinct enterprises for ease of capitalizing expenses for both business analysis and income tax purposes.
8. The IRS no longer allows latitude in choosing to capitalize pre-production expenses of fruit trees.
9. For orchards purchased or coming into production between 1981 and 1987 the Alternate Cost Recovery System was used. One of 2 methods was applicable to orchards and cost recovery took place over 5, 12 or 25 years.

10. For orchards purchased or coming into production after 1986 the Modified Cost Recovery System was used. One of 2 methods is applicable to orchards and cost recovery takes place over 7 years.

B. Objective

To complete a depreciation schedule/inventory for machinery, equipment and buildings.

C. Motivation

1. Depreciation is an important cost to the orchard operation and the true meaning of depreciation is often overlooked. Having a "handle" on the wear, tear and obsolescence of machinery, equipment and buildings can aid in assessing the true profit and loss in a given year and in forward planning for the replacement of capital items.

2. Keeping an accurate inventory of all capital assets is required by most lending institutions in obtaining credit for the orchard operation.

3. Depreciation is an important deduction for income tax purposes. Though this has been made less of a tax deduction (with the IRS pulling allowance for investment credit) this deduction is still an important tool in maximizing after tax income For example:

   A $20,000. tractor is purchased in 1987, the maximum allowable deduction in the first year is $11,429. If you are in the 28% tax bracket that amounts to an increase in after tax income for the year of $3,200.

   $10,000. 179 deduction (Allowable in 1987)
   +1,429 (Deduction = (1/7 yrs. x 2) divided by 1/2 (yr. convention)
   $11,429 Deduction x 28% bracket = $3,200.

4. Even with the "tax simplification" which was to accompany the 1986 tax reform act, completing income tax forms remains both time consuming and exacting. Incorrect filing costs you money either way, whether you overpay or underpay your share of taxes.

5. Depreciation records add an additional complication in the fact that they are dependent on several years records for calculating this years deduction. This requires an organized form where entries remain from year to year.

D. Key Questions

1. What are some guidelines for completing a depreciation schedule/inventory for machinery, equipment and buildings for items purchased prior to 1981?

2. What are the guidelines for completing a depreciation schedule/inventory for machinery, equipment and buildings for items purchased from 1981 to 1986?

3. What are the current guidelines for completing a depreciation schedule/inventory for machinery equipment and buildings for items purchased after 1986?

E. Introduction of Information.

1. What are some guidelines for completing a depreciation schedule/inventory for machinery, equipment and buildings for items purchased prior to 1981?

Use TM-13 14 and TM/HO-I/7/1 to demonstrate how to maintain a depreciation schedule for machinery, equipment and buildings.

a. Prior to 1981 orchardists could choose one of 3 methods of depreciation for most items. Along with this there was a large degree of flexibility in determining the life of depreciable assets. The three methods of depreciation used where:

1) Straight line method. Using this method, depreciation for each year is determined by dividing the adjusted basis of the property at the beginning of the year, minus the salvage value by the useful life of the property.

2) The declining balance method divided 1 by the number of years of useful life and then multiplied this percentage by 2 (for 200% declining balance) or by 1.5 (for 150% declining balance) based on the type of property.

a) 200% declining balance was used for new personal property (machinery and equipment) with a useful life of more than 3 years.

b) 150% declining balance was used on personal property (machinery and equipment) and depreciable real estate.

c) This percentage is then multiplied times the previous years (remaining book value minus the salvage value).

3) Sum of the years digits method was seldom used. It is calculated by dividing the remaining life of the item at the beginning of the year by the sum of the numbers representing the years of useful life.

   a) For 5 year property the first years percentage would equal 33%.

   b) $\frac{5}{1 + 2 + 3 + 4 + 5} = \frac{5}{15} = 33\%$

4) Refer to the previous depreciation schedule to determine which of these 3 methods were used to calculate depreciation for the item if it is still being depreciated.

b. Some general guidelines for recording machinery and equipment on Form 13 are:

1) It may prove beneficial to place items purchased prior to 1981 on as separate page of Form 13.

2) Record the oldest items first and work to subsequent years.

3) Record only machinery and equipment (for items purchased prior to 1981) on Form 13.

4) Enter the date purchased (month and year) and enterprise number if applicable.

5) Include a sufficient description so that the item will be recognizable in future years. For groups of like items, such as picking bags, include the quantity.

6) If a trade was made toward the purchase of the item enter the remaining book value of the trade-in (5) and the cash difference paid (6).

7) Enter the total basis of the item (5 + 6) in column 7.

8) If additional first year depreciation was taken, enter in column 8 (Expense Election).

9) Prior to 1981 salvage value was allowed. This value represented what the item would be worth after it had been depreciated out (9).

10) The balance for regular depreciation should be equal to the total basis (7) - additional depreciation (8) - salvage value (10) for the straight line method or sum of the digits. If declining balance was used the balance for regular depreciation equals the total basis (7) - additional depreciation (8).

11) Enter the remaining book value for the previous year. If salvage value was taken make sure it is included in the remaining book value.

12) Enter the years of life and method in columns 13 and 14 respectively.

    a) SL if straight.
    b) DB if declining balance.
    c) SD for sum of the digits.

13) If column 14 is SL, simply enter the amount of depreciation taken the previous year in column 18 of each year remaining in the useful life of the item except the last.

    a) Subtract this from the remaining book value of the previous year and enter in column 19 of the current year.

    b) Salvage value should be included in the remaining book value and this will be the value of the item when it is depreciated out.

    c) The last year's depreciation may be less than previous year's depending on what month the item was purchased. Prior to 1981 a percentage of the depreciation was taken on the first year depending on which month the item was purchased.

14) If column 14 is DB and the item is past its half life (1/2 13) you will figure the remaining depreciation using the straight line method. To accomplish this:

    a) Divide the remaining book value for the previous year - salvage value by the number of years remaining in the life of the item.

    b) Enter this in column 18 in all the remaining years except the last year.

c) Subtract this from the remaining book value of the previous year and enter in column 19 of the current year.

d) The last year's depreciation may be less than previous year's depending on what month the item was purchased. To determine the depreciation amount subtract the salvage value from the remaining book value of the previous year.

e) Salvage value should be included in the remaining book value of the item when it is depreciated out.

15) If column 14 is DB and the item is not past its half life (1/2 13) use the declining balance method to determine the current year's depreciation.

a) Divide 1 by the number of years of life (13) and multiply by 1.5 or 2 depending on the method used previously.

b) Enter that percentage in column 17 of the current year.

c) Multiply that percentage times the remaining book value for the previous year and enter in column 18 of the current year.

d) Subtract this amount from the remaining book value of the previous year and enter in column 19 of the current year.

c. Some guidelines for recording buildings and land improvements include:

1) Buildings should be recorded on Form 14.

2) Record the oldest items first and work through in ascending order.

3) Enter the date purchased and enterprise number if applicable. In most cases the total depreciation will be accumulated and allocated to specific enterprises at the end of the year.

4) Provide enough description so the item can be identified.

5) Enter the total basis of the item.

6) Enter prior depreciation.

7) Enter the remaining book value. This information should be obtained from previous depreciation schedules or income tax return forms.

8) For buildings purchased prior to 1981 one of 2 methods was used depending on whether the item was new or used.

    a) The straight line method was required on new buildings.

    b) The 150% declining balance was required on used buildings.

    c) Salvage value was not allowed for buildings.

    d) Enter either SL or DB for method and the number of years of life for the item.

9) If column 10 is SL then enter the amount of depreciation taken in previous year's in column 14 of each of the remaining year's of life except the last year.

    a) Subtract this from the remaining book value of the previous year and enter in column 15 of the current year.

    b) The last year's depreciation may be less than previous years depending on what month the item was purchased.

10) If column 10 is declining balance and the item is past its half life (1/2 9) the remaining depreciation will be figured using the straight line method.

    a) Divide the remaining book value for the previous year by the number of years remaining in the life of the item.

    b) Enter this amount in column 14 of all of the remaining years of life except the last year.

    c) Subtract this from the remaining book value of the previous year and enter in column 15 of the current year.

    d) The last year depreciation may be less than previous year's depending on what month the item was purchased.

11) If column 10 is declining balance and the item is not past its half life (1/2 9) the depreciation will be figured using the 150% declining balance.

   a) Divide 1 by the number of years of life (9) and multiply by 1.5.

   b) Enter that percentage in column 13 of the current year.

   c) Multiply that percentage times the remaining book value for the previous year and enter in column 14 of the current year.

   d) Subtract this amount and enter in column 15 of the current year.

2. What are some guidelines for completing a depreciation schedule/inventory for machinery, equipment and buildings for items purchased from 1981 to 1986?

   Use TM-13 and 14 and TM/HO-I/7/1,2,3 and 4 to demonstrate how to establish and maintain a depreciation schedule for machinery, equipment and buildings.

   a. Machinery, equipment and buildings purchased from 1981 through 1986 fall into the Accelerated Cost Recovery System (ACRS) of depreciation. There are two cost recovery methods which may be used under ACRS and life is determined by what property class the item falls into.

      1) For the standard Accelerated Cost Recovery System machinery and equipment are in either a 3 or 5 year property class. TM/HO-I/7/2.

      2) Single purpose livestock and or horticultural structures fall into 5 year property class.

      3) Most multi purpose buildings fall into the 15 year property class. While house trailers are 10 year property.

      4) Tables with the appropriate percentages for the year of life are used to determine the depreciation for that year. TM/HO-I/7/3.

      5) Under the straight line method of ACRS a choice of life is made depending on the property class the item falls into based on the tables on TM/HO-I/7/4.

6) To determine the life and method used on items purchased between 1981 through 1986 refer to the previous year's depreciation schedule or income tax returns.

b. Some general guidelines for recording machinery, equipment and single purpose buildings include:

1) Use Form 13 to record machinery, equipment and single purpose buildings (3 and 5 year property class).

2) Start with the oldest property and work forward in ascending order.

3) For each year group the three year property together and 5 year property together, skipping a line between each group and between years.

4) Enter the date purchased and enterprise number if applicable.

5) Enter enough description so the item can be identified years later.

6) If investment credit was taken record the amount on column 4.

7) If a trade was made for the item when it was purchased enter the remaining book value of the trade in on column 5.

8) Now enter the cash difference paid for the new item.

9) The total basis of an item is the purchase price paid, if no trade-in was made or the remaining book value of the traded item plus the cash paid, if a trade-in was made. Enter that amount in column 7.

10) Enter the amount of expense election taken in column 8. The total amount may be taken on one item or accumulated across several items and the total should be no greater than:

    a) $5,000 in 1982 - 1983
    b) $7,500 in 1984
    c) $10,000 in 1985 and 1986

11) Salvage values is not allowed as a part of the accelerated cost recovery system.

12) The balance for regular depreciation will vary with the amount of investment credit taken and should equal one of the following:

   a) If the property is 3 year class life and 4% investment credit was taken 10 = 7 - 8.

   b) If the property is 3 year class life and 6% investment credit was taken 10 + 7 - (1/2 x 4) - 8.

   c) If the property is 5 year class life and 8% investment credit was taken 10 = 7 - 8.

   d) If the property is 5 year class life and 10% investment credit was taken 10 = 7 - (1/2 x 4) - 8.

13) Enter prior depreciation taken in column 11.

14) Enter the remaining book value for the previous year in column 12.

15) Enter the life and method used for the item in previous years. In columns 13 and 14 respectively one of 2 methods will have been used either ACRS or ACRSSL.

   a) For 3 year property the following amounts will be used:

      (1) Standard ACRS in which case the percentage rate will be:

      1st year - 25%
      2nd year - 38%
      3rd year - 37%

      (2) Alternate ACRS method is a straight line method in which 3 year property would either be 3, 5 or 12 years.

         (a) If alternate ACRS is used then only 1/2 of the depreciation was taken in the first year.

         (b) The remaining depreciation will be taken in the 4th, 6th or 13th year.

   b) For 5 year property the following amounts would be used:

(1) If regular ACRS was used the percentage taken would be:

1st year - 15%
2nd year - 22%
3rd through 5th year - 21%

(2) If alternate ACRS was used the life taken would be 5, 12 or 15 years. The percentage rate would remain the same throughout the years and would be 20% for 5 years, 8.333% if 12 years was chosen or 6.667% if 15 years was chosen.

(a) If alternate ACRS is used only 1/2 of the depreciation was taken in the first year.

(b) The remaining depreciation will be taken in the 6th, 13th or 16th year.

16) Enter the current year's percentage of depreciation in column 17 of the current year.

17) Multiply this amount times column 10 and enter that amount in column 18.

18) Subtract the amount in column 18 from the previous years remaining book value and enter in column 19 of the current year.

19) Remember to depreciate only the previous year's remaining book value in the last year.

c. Some general guidelines for recording multi-purpose buildings, land improvements and house trailers include:

1) Use forms 14 to record multi-purpose buildings, land improvements and house trailers.

2) Start with the oldest property and work forward in ascending order.

3) For each year group the 10 year property together and the 15 year property together, stripping a line between each group and between years.

4) Enter the date purchased and enterprise number if applicable as well as a description.

5) Enter building costs if applicable. Remember labor costs are paid labor cost only not unpaid family or operator labor.

6) Enter the total basis and prior depreciation.

7) Enter the remaining book value for the previous year.

8) Enter the life and method used for the item in previous years. In columns 9 and 10 respectively one of two methods will have been used either regular ACRS or alternate ACRS.

    a) For 10 year property the following amounts will be used:

        (1) Regular ACRS the percentage rate will be:

        1st year - 8%
        2nd year - 14%
        3rd year - 12%
        4th year - 10%
        5th year - 9%

        (2) Alternate ACRS method is a straight line method and the life may be chosen from one of the following:

        10 years - 10%
        25 years - 4%
        35 years - 2.857%

    b) For 15, 18, and 19 year property one of the following methods will be used:

        (1) Regular ACRS method the percentage rate is dependent on what month of the year the item was purchased. That percentage can be found on HO-73.

        (2) Alternate ACRS is a straight line method where one of three lives are chosen, those being:

        15 years - 6.667%
        35 years - 2.857%
        45 years - 2.22%

    c) Again only 1/2 the depreciation was taken in the first year so the last years depreciation will be equal to the remaining book value from the previous year.

9) Enter the current year's percentage in column 13 of the current year.

10) Multiply this amount times column 6 and enter that amount in column 14.

11) Subtract the amount in column 14 from the previous years remaining book value and enter in column 15 of the current year.

12) Remember to depreciate only the previous year remaining book value in the last year.

3. What are the guidelines for completing a depreciation schedule/ inventory for machinery, equipment and building for items purchased after 1986?

   Use TM-13, 14 and TM/HO-I/7/1, and 5 to demonstrate how to establish and maintain a depreciation schedule for machinery, equipment and buildings for items purchased after 1986.

   a. "Nothing is forever" and that quote certainly does pertain to the tax codes. As a part of the tax reform act of 1986 the cost recovery system for figuring depreciation was drastically changed.

   b. Under the current laws the Modified Accelerated Cost Recovery System (MACRS) generally applies to property placed in service after December 31, 1986. (There was a choice to use this on property placed in service after July 31, 1986.)

   c. Using the MACRS method of cost recovery most orchard items will fall into one of 5 property classes. TM/HO-I/7/5 is a list of machinery, equipment and buildings and their proper classification under MACRS.

   d. It is essential to consolidate items in a given property class for each year and allow a space for totaling for income tax purposes.

   e. The majority of machinery and equipment will fall under the 7 year property class.

   f. Once the property class has been identified you will use one of 2 methods for calculating the yearly depreciation.

1) Regular MACRS is a declining balance method of depreciation and is calculated by dividing 1 by the property class and multiplying by 2 (200% declining balance for 3, 5, 7 and 10 year property) or 1.5 (150% declining balance) for 15 and 20 year property class.

   a) The percentage for each property class would be:

Class	Percentage	Class	Percentage
3 =	66.67%	10 =	20%
5 =	40.00%	15 =	10%
7 =	28.50%	20 =	7.5%

   b) This percentage is multiplied times the remaining book value of the previous year to determine the current years depreciation.

   c) This method is changed to straight line, "for the first tax year for which that method when applied to the adjusted basis at the beginning of such year will yield a larger deduction." Put more simply:

Class	Year to SL	Class	Year to SL
3	3	10	7
5	4	15	7
7	5	20	9

2. Alternate MACRS is a straight line method of depreciation and is calculated by dividing 1 by the property class of the item.

   a) Percentages used for the straight line method are multiplied times the total basis rather than the previous remaining book value.

   b) Some exceptions to using the property class are single purpose agricultural and horticultural structures are 7 year property class but 15 is used in the calculation.

g. Some general guidelines for recording machinery, equipment, single purpose agricultural and horticultural structures include:

   1. Use forms 13 to record machinery, equipment and single purpose structures (3, 5 and 7 year property).

   2. Start with the oldest property and work forward in ascending order.

   3. For each year group the three year property together, the five year property together and the seven year property together skipping a line between each group.

4. Enter the date purchased, enterprise number and description.

5. Under the 1986 Tax Reform Act investment credit is no longer allowed.

6. Record the "book value" of any item traded in toward the purchase of this item. The "book value" is equal to the undepreciated value of the trade-in.

7. Enter the cash difference paid (if a trade-in was used in the purchase of the item.) Enter the cash paid even if money is borrowed to pay this difference.

8. If a trade-in was used toward the purchase an item the total basis is equal to the "book value" of the trade-in plus the cash difference paid.

    a) Do not use the list price or cash paid plus fair market value.

    b) For example if a tractor which was depreciated out was used as a trade-in on a new tractor and the dealer gave $2.000. for the old tractor and you paid $14,000. for the purchased tractor, 0 would be entered in column 5 and $14,000. in column 6. 5 + 6 = 14,000. which would be entered in column 7.

9. If no item was traded in the total basis is equal to the purchase price.

10. The section 179 deduction allowable is $10,000. This may be taken from the value of one item or accumulated over the value of several items.

    a) For passenger automobiles no more than 2,560 can be taken for depreciation and section 179 deduction.

    b) Section 179 deduction can only be taken the first tax year that the property is placed in service.

    c) Property must be at least 50% for business use to take section 179 deduction.

    d) Property must have more than 3 years useful life.

    e) For ease of filing try to choose items which will not be sold out before depreciation is completed so no recapture of section 179 deduction will be necessary.

11. Salvage value does not apply to MACRS methods.

12. The balance for regular depreciation is equal to the total basis (7) - section 179 deduction (8).

13. Record prior depreciation if the item is carried forward from another depreciation schedule.

14. The remaining book value is equal to 10 - 11.

15. Use HO/TM-76 to determine the life of the item and enter in column 13.

16. Since the MACRS method must be consistent for all items in a property class in a given year, you may wish to wait to determine which method to use at the end of the year.

    a) If you choose regular MACRS enter MACRS for each item in a given property class purchased this year in column 14.

    b) If you choose alternate MACRS enter MACRSSL for all items of a property class purchased this year in column 14.

17. Either a half year or mid-quarter convention is used under MACRS.

    a) Half year convention is used unless the aggregate basis of MACRS property placed in service during the last three months of the tax year (the total of column 7 for Oct., Nov. and Dec.) is 40% of the aggregate basis of all property placed in service that year (total of column 7 for the year).

    b) If this is the case the mid-quarter convention is used.

    c) This is designed to deter the traditional "yule time" tax management technique of purchasing capital items at the end of the year to level income in high return years.

    d) If you foresee the possibility that you will be making large capital purchases toward the latter part of the year it would be best to wait until the end of the year to figure depreciation on items purchased in that year.

e) Enter either .50 (1/2 convention) or the appropriate quarter percentage if the previous case is true.

Quarter	Percentage
1st	87.5%
2nd	62.5%
3rd	37.5%
4th	12.5%

18. If column 14 = In column 15 MACRS divide 1 by column 13 and multiply this amount by 2 and enter in column 16.

a) Multiply 16 x 15 and enter that percentage in column 17 of the first year.

b) Enter that percentage in all years of life of the item but the first and last year.

c) If this is a newly purchased item, multiply the percentage (17) times column 10 and enter in column 18.

d) Multiply column 17 of the current year times the remaining book value of the previous year and enter in column 18 of the current year.

e) Subtract column 18 of the current year from the remaining book value of the previous year and enter in the remaining book value of the current year.

19. If column 14 = MACRSSL divide 1 by 13 and enter that percentage in column 16 and all years except the first and last year.

a) If this is an item purchased this year multiply that percentage times column 15 and enter in column 17 of the first year.

b) Multiply column 17 of the current year times the balance for regular depreciation (10) and enter in column 18 of the current year.

c) Subtract column 18 of the current year from the remaining book value of the previous year and enter that amount in the remaining book value of the current year.

h. Some general guidelines for recording multi-purpose agriculture and horticultural structures and manufactured homes (mobile homes) include:

1. Use forms 14 to record multi-purpose agricultural or horticultural structures and manufactured homes (mobile homes). 10 and 20 year property.

2. Start with the oldest property and work forward in ascending order.

3. For each year group the 10 year property together, the 15 year property together and the 20 year property together.

4. Enter the date purchased, enterprise number and a description of the item.

5. Record building materials and construction labor. Remember only paid labor may be used to determine the total basis.

6. The total basis is equal to the purchase price of the building or manufactured home. Or column 4 plus column 5 if recently built.

7. Record prior depreciation if the item is carried forward from another depreciation schedule.

8. The remaining book value is equal to 6 - 7.

9. Using HO/TM-6 determine the life of the item and enter in column 9.

10. Since the MACRS method must be consistent for all items in a property class in a given year you may wish to wait until the end of the year to determine which method to use at the end of the year.

    a) If regular MACRS is chosen enter pre-MACRS in column 10.

    b) If alternate MACRS is chosen enter MACRSSL in column 10.

11. Enter either 1/2 or 1/4 convention percentage in 11.

12. If column 10 = MACRS divide 1 by 9 and multiply this amount by 1.5.

    a) Enter that percentage in column 12 in all years of life across the form but the first and last year.

b) Multiply column 12 x column 13 and enter in column 13 of the first year.

c) Multiply column 13 of the current year times the remaining book value of the previous year and enter in column 14 of the current year.

d) Subtract column 13 of the current year from the remaining book value of the previous year and enter in the remaining book value of the current year.

13. If column 10 = MACRSSL divide 1 by column 9 and enter that percentage in column 12 in all years except the first and last year.

a) Multiply column 12 times column 11 and enter in column 13 of the first year.

b) Multiply column 13 of the current year times the Total Basis column 6 and enter in column 14 of the current year.

c) Subtract column 14 of the current year from the remaining book value of the previous year and enter in the remaining book value of the current year.

F. Group Discussion

Allow sufficient time for enrollees to direct question about depreciation of machinery, equipment and buildings. Be prepared to demonstrate how particular pieces of machinery or equipment might be depreciated. Pay particular attention to the current tax laws and their effect on depreciation.

G. Conclusions

1. Depreciation is an often an overlooked expense to the orchard operation for business analysis purposes.
2. Accurate inventories of machinery, equipment and buildings are necessary in obtaining credit.
3. Depreciation is deductible for income tax purposes.
4. Depreciating items for income tax purposes must be done following specific guidelines set by the tax code over the year.

5. Even items which are depreciated out should be maintained on the depreciation schedule as an inventory.

6. Form 13 is designed to keep a depreciation schedule and inventor of machinery, equipment and single purpose agricultural structures.

7. Form 14 is designed to keep a depreciation schedule and inventory of multipurpose buildings, manufactured (mobile homes) and land improvements.

8. Forms 13 and 14 are designed to record several years depreciation on items and should be moved forward to subsequent year's record books.

9. Items purchased prior to 1981 are depreciated using one of three methods either straight line, declining balance or sum of the digits.

10. Items purchased from 1981 through 1986 are depreciated using the Accelerated Cost Recovery System (ACRS). There are two cost recovery methods and life is determined by the property class the item falls into.

11. For the regular ACRS method a table of percentages for each class of property is multiplied times the balance for regular depreciation to determine the dollars of depreciation each year.

12. The alternate ACRS method uses a straight line depreciation and a choice of 1 of 3 lives is made for each class of property.

13. Most machinery and equipment falls into 5 year class property under ACRS.

14. If an item is sold before it is depreciated out, investment credit must be recaptured.

15. For items purchased after 1986 (Dec. 30 in most cases, July 30 on some items) the Modified Accelerated Cost Recovery System is used to figure depreciation.

16. Under MACRS one of two methods may be chosen to depreciate items and items fall into one of 5 property classes.

17. Regular MACRS uses a declining balance method in which the percentage is multiplied times the remaining book value of the previous year. The method is converted to straight line at the point where depreciation figured by straight line is greater than or equal to that by decling balance.

18. Alternate MACRS is a straight line method in which the depreciation amount (except the first and last year) remains the same. The percentage taken each year is multiplied times the balance for regular depreciation.

19. Investment credit is no longer allowed under the new tax code.

20. The section 179 deduction may be up to $10,000 under current tax laws.

21. Either 1/2 or 1/4 convention is applied to the first years depreciation.

H. Orchard Visit

On orchard visits following this lesson help enrollees complete their inventory/depreciation schedules for machinery equipment and buildings.

I. Materials Needed

Instructor/Enrollee

Orchard Business Management Record Book

TM-13	Depreciation Schedule/Inventory - Mach/Equip/Single Purpose Buildings
TM-14	Depreciation Schedule/Inventory - Multipurpose Buildings
TM/HO-I/7/1	Sample Orchard Depreciation Information
TM/HO-I/7/2	ACRS Property Class Items
TM/HO-I/7/3	ACRS Percentages
TM/HO-I/7/4	Alternate ACRS Percenatges
TM/HO-I/13/5	MACRS Property Class Items

SAMPLE ENTRIES FOR DEPRECIATION SCHEDULE

THE FOLLOWING TABLE INCLUDES A LIST OF ITEMS TO BE LISTED ON THE DEPRECIATION SCHEDULE / INVENTORY OF MACHINERY / EQUIPMENT / SINGLE PURPOSE LIVESTOCK FACILITIES.

ITEMS PURCHASED FROM 1/78 THROUGH 1/82 HAVE ALREADY BEEN INCLUDED ON THE SCHEDULE/INVENTORY. COMPLETE THE SCHEDULE FOR THE FOLLOWING ITEMS PURCHASED AFTER 1982. START DEPRECIATION OF ITEMS IN 1986.

DATE PURCHASED	TOTAL BASIS	INVESTMENT CREDIT	SEC. 1791 EXP. ELEC.	LIFE	METHOD	DESCRIPTION
2/83	5,000	500	5,000	5	ACRS	AIR BLAST SPRAYER, FMV = $3,900
2/83	250	25		5	ACRS	CHAINSAW, FMV = $100
2/83	250	25		5	ACRS	10 POLE PRUNNERS, FMV = $125
2/83	200	20		5	ACRS	10 LOPPING SHEARS, FMV = $100
5/83	220	22		5	ACRS	10 PICKING BUCKETS, FMV = $100
5/83	505	51		5	ACRS	5 LADDERS, FMV = $350
4/84	13,000	1,300	7,500	5	ACRS	54 HP 4 WHEEL DRIVE TRACTOR, FMV = $9,500
4/84	2,000	200		5	ACRS	BRUSH RAKE, FMV = $1,500
5/85	400	40	400	5	ACRS	PROPS
12/85	2,000	200	2,000	5	ACRS	4-WHEELER (SOLD TO NEIGHBOR 1988)
3/86	7,250		7,520	5	ACRS	(GALA 415) SS IRR.,$1,450/A X 5 A, FVM = $5,000
3/86	14,500		2,750	5	ACRS	(OREGON SPUR-SPUR GOLD-313,314) SS IRR., $1,450 X 10 A, FVM = $10,000
8/86	250			5	ACRS	10 PICKING BAGS, TMV = $150
10/86	200			5	ACRS	OFFICE CHAIR, TMV = $75
10/86	65			5	ACRS	OFFICE CALCULATOR, TMV = $20
10/86	500			5	ACRS	SHOP TOOLS, FMV = $ 300
3/87	565			7	MACRS	4 OUTHOUSES,BUILD. MATERIALS = $565 FMV = $200
4/87	250			7	MACRS	FIREPROOF STORAGE BOX, FMV = $150
4/87	150			5	MACRS	87 FORD F250, 4WD/TRADED 79 F250, PAID $13,000 FMV = $11,000
9/88	1,500			7	MACRSSL	TRACTOR MOUNTED SNOW BLOWER, FMV = $1,100
12/88	900			7	MACRSSL	SPRAY HELMET, FMV = $400
12/88	200			7	MACRSSL	SPRAY SUITS, FMV = 0

SAMPLE ENTRIES FOR FORM 14

DEPRECIATION SCHEDULE/INVENTORY--MULTIPURPOSE BUILDINGS

THE FOLLOWING TABLE INCLUDES A LIST OF ITEMS TO BE PLACED IN FORM 14.
FIGURE DEPRECIATION ON ITEMS STARTING IN 1986.

DATE PURCHASED	TOTAL BASIS	LIFE	METHOD	DESCRIPTION
1/78	2,250	15	SL	3 PICKER'S SHEDS VALUED ORIGINALLY AT $750 EACH, FMV = $3,000
1/78	500	15	SL	OLD BARN, FMV = $250
1/79	215.95	10	SL	PUMP HOUSE, MATERIALS = $250, 13 HR. LABOR (PAID)@$4.50/HR, FMV = $250
5/82	5,400	15	ACRSSL	20 X 40' PLE BARN/SHOP, 80 HR. LABOR (PAID)@ $5/HR, MATERIALS = $5,000
3/87	3,250	10	MACRS	40' TRAILER AND HOOK UP

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DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

PAGE 1

				ITEMS PURCHASED PRIOR TO 1985					ITEMS PURCHASED PRIOR TO 1981		ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		
	DATE	ENT. #	DESCRIPTION	INV. CREDIT	REMAINING BOOK VALUE TRADE-IN	CASH DIFFERENCE PAID	TOTAL BASIS	EXPENSE ELECTION	SALVAGE VALUE	BALANCE FOR REG. DEPREC.	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	
1	1/78	0	1950 Jeep				200 -		50 -		150	50 -					1
2	1/78	0	1962 Ford 8N Tractor TRADED			300 -	300 -		300 -		[illegible] -	200 -					2
3	1/78	0	1965 Back loader TRADED			100 -	100 -		50 -		50 -	50 -					3
4	1/79	0	75 Fertilizer spreader			700 -	[illegible] -		100 -		600 -	100 -					4
5	1/79	0	79 Ford F250 4WD TRADED		1000 -	7000 -	[illegible] -		500 -		[illegible] -	[illegible]					5
6	1/79	0	Trailer				150 -		0 -		150 -	0 -					6
7	1/80	0	1 Way Mower		50 -	500 -	550 -		100 -		450 -	100 -					7
8	1/81	0	[illegible] Cabinets			50 -	50 -		0 -		50 -	0 -	5	ACRS			8
9	1/81	0	[illegible] Machine				65 -		-		55	0 -	5	ACRS			9
10	1/81	0	Tractor 24hp John Deere				[illegible] -				[illegible] -	0 -	5	ACRS			10
11	1/81	0	Irrigation Equipment		[illegible] -	[illegible] -	3500 -				3500 -	0	[illegible]	ACRS			11
12	1/81	0	Irrigation [illegible], Riser			[illegible] -	[illegible] -				1000 -	0	[illegible]	ACRS			12
13	1/81	0	Shop tools and Equipment			1300 -	1300 -				1300 -	0	5	ACRS			13
14	1/81	0	[illegible]			750 -	750 -				750 -	0	5	ACRS			14
15	1/81	0	[illegible]			[illegible] -	[illegible] -				130	[illegible]	5	ACRS			15
16	1/81	0	[illegible]				[illegible]				200	[illegible]	5	ACRS			16
17	1/81	0	10 Lopping Shears [illegible]			175 -	175 -				175 -	0	5	ACRS			17
18	1/81	0	[illegible] Machines				[illegible]				1500	[illegible]	5	ACRS			18
19	1/81	0	[illegible]				1500 -				750 -	0	[illegible]	ACRS			19
20	1/81	0	[illegible] Mower	[illegible] -			1000 -	1000 -			1000 -	0	5	ACRS			20
21	1/82	0	[illegible]	100			1000 -	1000 -			[illegible]	0	5	ACRS			21
22	1/82	0	[illegible]	200 -			2000 -	2000 -			2000 -	[illegible]	5	ACRS			22
23	1/82	[illegible]	[illegible]				112 50				112 50	0	5	ACRS			23
24																	24
25																	25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

FORM 13 YEAR(S) 86-89 DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

	YEAR: 86				YEAR: 87				YEAR: 88				YEAR:			
	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE
	%	$			%	$			%	$			%	$		
1			50 -	100 00			50 00	100 00			50 00	100 00				
2			200	600 -			200 -	600 -	TRADED IN ON				SNOWBLOWER			
3			50	0 -			50 -	0 -	TRADED IN ON				SNOWBLOWER			
4			100 00	100 00			100	100 00			100 00	50 00				
5			500 00	2000 00		TRADED ON		87	F 250 4WD							
6			0	75 00				75 00				75 00				
7			100 00	200 00			100 00	200 00			100 00	200 00				
8			0 00	50 00			0 00	50 00			0 00	50 00			-	
9			0 00	0 00			0 00	0 -			-	-				
10			0	600 00			0 -	600 -			0	600 00				
11			0 00	800 -			-	800 -			0	750 -				
12			0 -	300 -			-	200 -			-	200 -				
13				700 -			-	650 -			-	650 -				
14			-	500 -			-	450 00			-	400 00				
15			-	50 -			-	50 -			-	50 00				
16			-	150 -			-	150 -			-	160 -				
17				40 -				40 00			-	40 00				
18			-	2000 -			-	2000 00			-	3000 -				
19			-	2500 -			-	2250 00				3000 00				
20			-	500 -				500 -			-	450 00				
21			-	500 -			-	500 00			-	450 00				
22				1750 00				1750 00			-	1700 00				
23			-	100 -			-	100 -			-	75 -				
24	TOTAL		[illegible] 00	[illegible]			500 -	[illegible] 00			250 00	11340 -				
25																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

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FORM 13 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

PAGE

				ITEMS PURCHASED PRIOR TO 1985					ITEMS PURCHASED PRIOR TO 1981		ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986	
	DATE	ENT. #	DESCRIPTION	INV. CREDIT	REMAINING BOOK VALUE TRADE-IN	CASH DIFFERENCE PAID	TOTAL BASIS	EXPENSE ELECTION	SALVAGE VALUE	BALANCE FOR REG. DEPREC.	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION
1	[illegible]	0	[illegible]	500 -		-	5000 -	5000		0 -	5000	[illegible]	5	ACRS		
2	[illegible]	0	[illegible]	[illegible]			250 -			[illegible]	[illegible]	[illegible]	5	ACRS		
3	[illegible]	0	[illegible]	[illegible]			250 -			[illegible]	[illegible]	[illegible]	5	ACRS		
4	[illegible]	[illegible]	[illegible]	[illegible]			[illegible] -			[illegible]	[illegible]	[illegible]	5	ACRS		
5	[illegible]	0	[illegible]	22 -			[illegible] -			[illegible]	[illegible]	[illegible]	5	ACRS		
6	[illegible]	0	[illegible]	[illegible] -			[illegible] -			[illegible]	[illegible]	201	5	ACRS		
7	[illegible]	0	[illegible] tractor	[illegible] -			12000 -	7500 -		[illegible] -	[illegible]	[illegible]	5	ACRS		
8	[illegible]	0	[illegible]	[illegible] -			2000 -			[illegible] -	[illegible] -	[illegible] -	5	ACRS		
9	[illegible]	0	[illegible]	[illegible] -			400 -	400 -		0 -	[illegible]	[illegible]	5	ACRS		
10	[illegible]	0	[illegible]	[illegible] -			2000 -	2000 -		0 -	[illegible] -	[illegible]	5	ACRS		
11	[illegible]	[illegible]	[illegible]				7250 -	7250 -		0 -	7250 -	0	5	ACRS		
12	[illegible]	[illegible]	[illegible]				[illegible]	[illegible] -		[illegible]	0	[illegible] -	5	ACRS		
13	[illegible]	0	[illegible]				[illegible] -			550 -		[illegible] -	5	ACRS		
14	[illegible]		[illegible]				[illegible] -			200 -		[illegible] -	5	ACRS		
15	[illegible]	[illegible]	[illegible]				[illegible] -			65 -		-	5	ACRS		
16	[illegible]	0	[illegible]				[illegible] -			[illegible] -		[illegible] -	5	ACRS		
17																
18																
19																
20																
21																
22																
23																
24																
25																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

FORM 13 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

	YEAR: 76							YEAR: 77							YEAR: 78							YEAR:						
	DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE	
	%	$						%	$						%	$						%	$					
1				0	-	[illegible]	-						[illegible]							2000	-							
2	21	40	22	21	97	100	-	21	21	[illegible]	0		100	-					-	100	-							
3	21	49	22	49	21	150		21	49	[illegible]	0		125				-		-	125								
4	21	39	9	39	30	100	-	21	39	[illegible]	0		0	-						100	-							
5	21	44	21	44	31	100	-	21	44	31	0		100							100	-							
6	21	100	30	100	20	200	-	21	100	[illegible]	0	-	200	-			-			200								
7	21	1018	20	1018	50	10000	-	21	1018	50	0	-	[illegible]	-			-		-	9500	-							
8	21	399	-	399		1500	-	21	399	-	0	-	1500	-					-	1500	-							
9		—		—		[illegible]				-			0							0								
10		-		-		1500	-						150	-					-	1500	-							
11		-		-		[illegible]	-						5000							5000	-							
12	15	1762	50	[illegible]	50	10000	-	22	[illegible]		7402	50	[illegible]	-	21	2467	50	4935	-	[illegible]	-							
13	15	37	50	[illegible]	50	500	-	22	55	-	157	50	150	-	21	52	50	105	-	150	-							
14	15	[illegible]		[illegible]	-	100	-	22	44		126	-	75	-	21	42	-	84	-	75	-							
15	15	9	15	25	25	20		22	14	20	40	95	20	-	21	13	65	27	30	20	-							
16	15	75	-	425	-	250	-	22	110	-	315		200	-	21	105	-	210	-	200	-							
17		3616	72	12552	20	23410	00		4516	05	2041	95	3320	00		2680	65	5361	30	32670	04							
18																												
19																												
20																												
21																												
22																												
23																												
24																												
25																												
	17	18		19		20		21	22		23		24		25	26		27		28		29	30		31		32	

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FORM 13 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

PAGE

				ITEMS PURCHASED PRIOR TO 1985					ITEMS PURCHASED PRIOR TO 1981		ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		
	DATE	ENT. #	DESCRIPTION	INV. CREDIT	REMAINING BOOK VALUE TRADE-IN	CASH DIFFERENCE PAID	TOTAL BASIS	EXPENSE ELECTION	SALVAGE VALUE	BALANCE FOR REG. DEPREC.	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	
1	[illegible]	0	4 Outhouses [illegible]				500 -			500 -		[illegible]	7	MACRS	.125	28.57	1
2	[illegible]	0	Fireproof [illegible] box				250 -			250 -		[illegible]	7	MACRS	.125	28.57	2
3																	3
4	4/87	0	Typewriter				150 -			150 -		[illegible]	5	MACRS	.125	40	4
5	[illegible]	0	[illegible] FORD F250 [illegible]		0	13000 -	13000 -			13000 -		13000 -	5	MACRS	.125	40	5
6																	6
7																	7
8	9/88	0	Tractor Mounted Snow Blower		250 00	1250 00	1500 -			1500 -		1500 -	7	SL	.125	14.29	8
9	12/88	0	[illegible] Helmet [illegible]				[illegible]			[illegible]		[illegible]	7	SL	.125	14.29	9
10	12/88	0	[illegible] Suits [illegible]				[illegible]			[illegible]		[illegible]	7	SL	.125	14.29	10
11																	11
12																	12
13																	13
14																	14
15																	15
16																	16
17																	17
18																	18
19																	19
20																	20
21																	21
22																	22
23																	23
24																	24
25																	25
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

FORM 13 YEAR(S) DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS. PAGE

YEAR: 81							YEAR: 59							YEAR:							YEAR:							
DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		DEPRECIATION			REMAINING BOOK VALUE		FAIR MARKET VALUE		
%	$						%	$						%	$						%	$						
25	141	25	423	75	200	00	[illegible]	121	37	402	63	200	00															1
17.9	41	75	[illegible]	25	50	00	.357	58	41	[illegible]	[illegible]	50	00															2
	186	-	629	-	250	00		179	71	[illegible]	59	250	00															3
15	22	50	127	50	50	00	.40	51	-	[illegible]	50	50	00															4
5	620	-	[illegible]	-	1250	00	.40	4946	-	7410	00	2000	00															5
	672	50	12919	00	12050	3		4991		7486	50	12050	00															6
																												7
							.071	106	50	1393	50	1300	00															8
							.071	43	00	[illegible]	10	450	00															9
1							.071	14	23	35	[illegible]	50	00															10
								124	65	54.5	[illegible]	1800	00															11
																												12
																												13
																												14
																												15
																												16
																												17
					75-82					250	00	17340	00															18
					83-86			2680	65	5361	20	32670	00															19
					87-88			5355	31	9978	40	14100	00															20
								8035	96	15589	70	64110	00															21
																												22
																												23
																												24
																												25
33	34		35		36		37	38		39		40		41	42		43		44		45	46		47		48		

FORM 14 YEAR(S) 86/87/88/

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

PAGE 1

			BUILDING COSTS			ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		YEAR: 86			
DATE	ENT. #	DESCRIPTION	MATERIALS	HIRED LABOR	TOTAL BASIS	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	DEPRECIATION %	DEPRECIATION $	REMAINING BOOK VALUE	FAIR MARKET VALUE
1/78	0	Laborers Housing 20'x20' 3@$150			2250.00	1200.00	1050.00	15	SL				150.00	900.00	1500.00
1/78	0	Old Barn			500.00	266.64	233.36	15	SL				33.33	236.69	200.00
1/79	0	Pump House 13 labor hrs @$4.50	250.00	58.50	308.50	215.75	92.55	10	SL				30.85	61.70	200.00
5/84	0	20'x40' Pole Barn/Shop 80 hrs @$5.00	5000.00	400.00	5400.00	540.00	4860.00	15	SL				360.00	4500.00	5000.00
3/87	0	40' Trailer & Hook up			3250.00			10	MACRS	.50	.20				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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FORM 14 YEAR(S) [illegible] DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

	YEAR: 87				YEAR: 87				YEAR:				YEAR:			
	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE
	%	$			%	$			%	$			%	$		
1		150 -	[illegible]	1500 -		150 00	600 00	1500 00								
2		33 [illegible]	[illegible]	200 -		33 33	170 03	200 00								
3		30 35	35 85	200 -		—	—	200 00								
4		214 18	984 21	1900 00		183 33	770 03	1900 00								
5																
6		360 00	4140 00	5000 00		360 00	3780 00	5000 00								
7		360 00	4140 00	5000 00		360 00	3780 00	5000 00								
8																
9	.10	325 -	2925 -	3000 -	.20	585 -	2340 -	3000 00								
10		325 00	2925 00	3000 00		585 -	2340 -	3000 00								
11																
12																
13																
14		Totals		78-82		183 33	770 03	1900 00								
15				82-86		360 00	3780 00	5000 00								
16				87-88		585 00	2340 00	3000 00								
17				Total		1128 33	6890 33	9900 00								
18																
19																
20																
21																
22																
23																
24																
25																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

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ACRS PROPERTY CLASS ITEMS

THREE YEAR PROPERTY

- AUTOMOBILES
- PICK-UP TRUCKS
- TRUCK LABOR UNITS FOR OVER-THE-ROAD USE

FIVE YEAR PROPERTY

- MOST ORCHARD MACHINERY AND EQUIPMENT
- FENCES
- IRRIGATION EQUIPMENT (PUMPS, MAINS, LATERALS, RISERS, ETC.)
- SINGLE PURPOSE STORAGE FACILITIES (PESTICIDE STORAGE)
- HEAVY DUTY TRUCKS (UNLOADED WEIGHT> 13,000 POUNDS)
- ENGINE OVERHAULS
- OFFICE EQUIPMENT AND MACHINERY
- WIND MACHINES
- OUTHOUSES

TEN YEAR PROPERTY

- MANUFACTURED HOMES (MOBILE HOMES)

ACRS PROPERTY CLASS ITEMS

CONTINUED

FIFTEEN YEAR PROPERTY

- * ALL MULTIPURPOSE FARM BUILDINGS AND LAND IMPROVEMENTS OTHER THAN THOSE SPECIFIED AS FIVE YEAR PROPERTY PLACED IN SERVICE BEFORE MARCH 15, 1984.

EIGHTEEN YEAR PROPERTY

- * ALL MULTIPURPOSE FARM BUILDINGS AND LAND IMPROVEMENT, OTHER THAN THOSE SPECIFIED AS FIVE YEAR PROPERTY, PLACED IN SERVICE BEFORE MARCH 15, 1984 AND DEC. 31, 1986.

NINETEEN YEAR PROPERTY

- * ALL MULTIPURPOSE FARM BUILDINGS AND LAND IMPROVEMENTS, OTHER THAN THOSE SPECIFIED AS FIVE YEAR PROPERTY, PLACED IN SERVICE AFTER MAY 8, 1985 AND DEC. 31, 1986.

ACRS PERCENTAGES

REGULAR ACRS

THREE YEAR PROPERTY

FIRST YEAR	25 %
SECOND YEAR	38 %
THIRD YEAR	37 %

FIVE YEAR PROPERTY

FIRST YEAR	15 %
SECOND YEAR	22 %
THIRD YEAR	21 %

TEN YEAR PROPERTY

FIRST YEAR	8 %
SECOND YEAR	14 %
THIRD YEAR	12 %
FOURTH-SIXTH YEAR	10 %
SEVENTH-TENTH YEAR	9 %

ACRS PERCENTAGES

CONTINUED

FIFTEEN YEAR PROPERTY (AFTER 1980, BEFORE MARCH 16, 1984)

YEAR	MONTH PLACED IN SERVICE											
	1	2	3	4	5	6	7	8	9	10	11	12
1ST	12%	11%	10%	9%	8%	7%	6%	5%	4%	3%	2%	1%
2ND	10%	10%	11%	11%	11%	11%	11%	11%	11%	11%	11%	12%
3RD	9%	9%	9%	9%	10%	10%	10%	10%	10%	10%	10%	10%
4TH	8%	8%	8%	8%	8%	8%	9%	9%	9%	9%	9%	9%
5TH	7%	7%	7%	7%	7%	7%	8%	8%	8%	8%	8%	8%
6TH	6%	6%	6%	6%	7%	7%	7%	7%	7%	7%	7%	7%
7TH	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
8TH	6%	6%	6%	6%	6%	6%	5%	6%	6%	6%	6%	6%

EIGHTEEN YEAR PROPERTY (AFTER MARCH 15, 1984, BEFORE MAY 9, 1985

YEAR	MONTH PLACED IN SERVICE											
	1	2	3	4	5	6	7	8	9	10	11	12
1ST	9%	9%	8%	7%	6%	5%	4%	4%	3%	2%	1%	.4%
2ND	9%	9%	9%	9%	9%	9%	9%	9%	9%	10%	10%	10%
3RD	8%	8%	9%	8%	8%	8%	8%	8%	8%	9%	9%	9%
4TH	7%	7%	7%	7%	7%	8%	8%	8%	8%	8%	8%	8%
5TH	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
6TH	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%	6%
7TH	5%	5%	5%	5%	6%	6%	6%	6%	6%	6%	6%	6%
8TH-12TH	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

ACRS PERCENTAGES

CONTINUED

NINETEEN YEAR PROPERTY (AFTER MAY 8, 1985, BEFORE 1987)

YEAR	MONTH PLACED IN SERVICE											
	1	2	3	4	5	6	7	8	9	10	11	12
1ST	8.8%	8.1%	7.3%	6.5%	5.8%	5.0%	4.2%	3.5%	2.7%	1.9%	1.1%	.4%
2ND	8.4%	8.5%	8.5%	8.6%	8.7%	8.8%	8.8%	8.9%	9.0%	9.0%	9.1%	9.2%
3RD	7.6%	7.7%	7.7%	7.8%	7.9%	7.9%	8.0%	8.1%	8.1%	8.2%	8.3%	8.3%
4TH	6.9%	7.0%	7.0%	7.1%	7.1%	7.2%	7.3%	7.3%	7.4%	7.4%	7.5%	7.6%
5TH	6.3%	6.3%	6.4%	6.4%	6.5%	6.5%	6.6%	6.6%	6.7%	6.8%	6.8%	6.9%
6TH	5.7%	5.7%	5.8%	5.9%	5.9%	5.9%	6.0%	6.0%	6.1%	6.1%	6.2%	6.2%
7TH	5.2%	5.2%	5.3%	5.3%	5.3%	5.4%	5.4%	5.5%	5.5%	5.6%	5.6%	5.6%
8TH	4.7%	4.7%	4.8%	4.8%	4.8%	4.9%	4.9%	5.0%	5.0%	5.1%	5.1%	5.1%

ALTERNATE ACRS PERCENTAGES

THREE YEAR PROPERTY

3 YEAR LIFE	33.33 %
5 YEAR LIFE	20.00 %
12 YEAR LIFE	8.30 %

FIVE YEAR PROPERTY

5 YEAR LIFE	20.00 %
12 YEAR LIFE	8.30 %
25 YEAR LIFE	4.00 %

TEN YEAR PROPERTY

10 YEAR LIFE	10.00 %
25 YEAR LIFE	4.00 %
35 YEAR LIFE	2.80 %

FIFTEEN YEAR PROPERTY

15 YEAR LIFE	6.67 %
35 YEAR LIFE	2.86 %
45 YEAR LIFE	2.22 %

EIGHTEEN YEAR PROPERTY

18 YEAR LIFE	5.50 %
35 YEAR LIFE	2.86 %
45 YEAR LIFE	2.22 %

NINETEEN YEAR PROPERTY

19 YEAR LIFE	5.26 %
35 YEAR LIFE	2.86 %
45 YEAR LIFE	2.22 %

MACRS PROPERTY CLASS ITEMS

THREE YEAR PROPERTY

- TRACTOR UNITS FOR USE OVER-THE-ROAD

FIVE YEAR PROPERTY

- ALL GENERAL PURPOSE TRUCKS (HEAVY DUTY AND LIGHT DUTY)
- COMPUTERS AND PERIPHERAL EQUIPMENT
- OFFICE MACHINERY (TYPEWRITERS, CALCULATORS, ETC.)
- AUTOMOBILES
- ENGINE OVERHAULS (FOR FIVE YEAR PROPERTY)

SEVEN YEAR PROPERTY

- FARM MACHINERY AND EQUIPMENT
- FENCES
- IRRIGATION EQUIPMENT (PUMP, MAINS, LATERALS, RISERS, ETC.)
- SINGLE PURPOSE AGRICULTURAL STRUCTURES (PESTICIDE STORAGE OR OUTHOUSE)
- ENGINE OVERHAULS (FOR SEVEN YEAR PROPERTY
- OFFICE FURNITURE
- WIND MACHINES

MACRS PROPERTY CLASS ITEMS

CONTINUED

TEN YEAR PROPERTY

* MANUFACTURED HOMES

FIFTEEN YEAR PROPERTY

* ROADS
* CANALS

TWENTY YEAR PROPERTY

* MULTIPURPOSE AGRICULTURAL BUILDINGS

FORM 14 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

PAGE

				BUILDING COSTS			ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		YEAR:				
													DEPRECIATION				
	DATE	ENT. #	DESCRIPTION	MATERIALS	HIRED LABOR	TOTAL BASIS	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	%	$	REMAINING BOOK VALUE	FAIR MARKET VALUE	
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FORM 13 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS.

	YEAR:				YEAR:				YEAR:				YEAR:			
	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE
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FORM 13 YEAR(S) DEPRECIATION SCHEDULE/INVENTORY - MACH./EQUIP./SINGLE PURPOSE BLDGS. PAGE

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DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	
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FORM 14 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

PAGE

				BUILDING COSTS			ITEMS CARRIED FORWARD FROM PREVIOUS DEPRECIATION SCHEDULES				ITEMS PURCHASED AFTER 1986		YEAR:				
													DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	
	DATE	ENT. #	DESCRIPTION	MATERIALS	HIRED LABOR	TOTAL BASIS	PRIOR DEPREC.	REMAINING BOOK VALUE	LIFE	METHOD	1/2 OR 1/4 YEAR	PERCENTAGE CALCULATION	%	$			
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FORM 14 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

PAGE

	YEAR:				YEAR:				YEAR:				YEAR:				YEAR:				
	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	
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FORM 14 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

PAGE

YEAR:				YEAR:				YEAR:				YEAR:				
DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	
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FORM 14 YEAR(S)

DEPRECIATION SCHEDULE/INVENTORY - MULTIPURPOSE BUILDINGS

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	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE	DEPRECIATION		REMAINING BOOK VALUE	FAIR MARKET VALUE
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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD RECORD KEEPING SYSTEM

III. Lesson 8: Maintaining a Record of Stored Crops

A. Review

The previous lesson, Developing and Maintaining Inventories and Depreciation Schedules for Machinery Equipment and Buildings, should be reviewed. Some conclusions from the previous lesson include:

1. Depreciation is often overlooked as an expense to the orchard operation.
2. Accurate inventories of machinery equipment and buildings are required by many lending institute when applying for credit.
3. Depreciation (cost recovery) is a deductible expense for income tax purposes.
4. Claiming depreciation (cost recovery) for income tax purposes must be done according to specific guidelines set by the federal tax codes.
5. Even items which are depreciated out should be maintained on the depreciation schedule for inventory purposes.
6. If an item is sold before full cost recovery is claimed, investment credit must be recaptured if investment credit was taken.
7. Items purchased prior to 1981 are depreciated using one of three methods either straight line, declining balance, or sum of the digits.
8. Items purchased from 1981 through 1986 are depreciated using the Accelerated Cost Recovery System (ACRS). There are 2 cost recovery methods to choose from and life is determined by the property class the item falls into.
9. Items purchased after 1986 (December 30 most cases, July 30 on some items) the Modified Accelerated Cost Recovery System (MACRS)is used to calculate depreciation.
10. Investment credit is no longer allowed under the new tax code.
11. The Section 179 deduction may be up to $10,000 under current tax laws.

12. Under current tax laws either 1/2 or 1/4 convention is applied to the first year's depreciation.

B. Objective

To complete an inventory of stored crops and maintain an accurate value of inventoried crops.

C. Motivation

1. Ask enrollees to give estimates of what percentage of their harvested crop is in storage at the current time. Write these percentages on the board or overhead.

2. Explain the Washington fruit industry has gained much of its strength on its ability to store its previously perishable commodity. However this has created quite a challenge to Washington orchardists who receive payment for their delivered crop as much as 10 months following delivery of that fruit to the sheds.

3. Ask enrollees to tell about some of the challenges they have encountered, write these on the board or overhead. These might include:

   a. Making estimates of receipts for cash flow purposes

   b. Determining and justifying loan needs

   c. Determining the ability to expand the operation or enterprises in the operation

4. Packout records used in conjunction with an inventory of stored crops can be a very useful tool in meeting these challenges.

D. Key Questions

1. How are packout records useful in maintaining an inventory of stored crops?

2. What are the guidelines for maintaining an inventory of stored crops?

3. How is the inventory of stored crops used for accrual accounting purposes?

4. How is the inventory of stored crops used to complete the profit and loss statement?

E. Introduction of Information

1. How are packout records useful in maintaining an inventory of stored crops?

   Information for this section is taken from Washington State University Bulletin 1217, Using Packout Records to Evaluate Your Orchard Financial Performance. This bulletin should be made available to enrollees as an aid in understanding information.

   a. Packout records vary from shed to shed but generally they provide a very complete analysis of returns from crop sales. This information includes:

      1) Volume of fruit - This figure will be given a variety of units and the number of pounds in these units should be known

         a) Grade of fruit.

         b) Size distribution of fresh fruit.

      2) Financial information relating to this physical breakdown is given as well. This information includes:

         a) F.O.B. prices for each grade and size.

         b) Packing house and industry charges.

         c) Packing house door returns or grower returns which are equal to F.O.B. price minus packinghouse and industry charges.

      3) Additionally a cullage analysis is given by many sheds and this analysis is very helpful in pinpointing what production factors need to be changed in partial budgeting.

   b. Updated packout records are sent throughout the sales period for the stored commodity and these combined with historic price records and information from yellow sheets allow growers to determine good estimates of stored crop value at a given period of time.

2. What are the guidelines for maintaining an inventory of stored crops?

   Using TM/HO-15 and TM/HO-I/8/1 demonstrate how the inventory of stored crops is filled out for the example provided.

a. Form 15 is designed to keep a running account of stored crops throughout a sales year. Each side of the form will contain information for 3 enterprises for a given year.

b. The upper block is a summary of information from packout records for this particular enterprise.

    1) This information can prove a useful tool in making convenient references of crop quality from year to year.

    2) Much of the information will either be recorded from the initial packout record or from the final packout record.

    3) The upper block should be filled out using the following steps:

        a) Record the corresponding enterprise number or numbers.

            (1) As discussed in lesson 5 enterprise designations may not be as defined for receipts as they are for expenditures. If this is the case record the combination of enterprise numbers.

            (2) Many sheds will work with you in keeping this information more defined on the packout records.

        b) The time at which this information is available will depend on the commodity and the method used in packing.

        c) Record grower rank and peak size.

        d) For accurate analysis from year to year all units should be converted to lbs. If the lbs. per unit are not known ask your fieldman or other shed representative for the unit weight and convert packed and culled units to lbs.

        e) Record the percent packout for the grower and pool. The average price per unit for the two upper grades will be determined from the final packout sheet.

        f) Record the percent cullage for grower and pool.

    4) The lower block of information is designed to keep a current estimate of the value of the crop which is still in storage The following guidelines will aid in completing this form.

        a) This part of the form is designed to keep packed fruit value separate from processed fruit.

b) The initial value of the crop may be estimated using the first packout sheet from the shed and historic price information.

   (1) When the initial packout record arrives, record the number of units for each enterprise.

   (2) Projecting the estimated value of these units is where it gets interesting. Some sources of information which will aid in determining these estimates include:

      (a) Historic records from previous packouts.

      (b) Grower clearinghouse price information.

      (c) Temper these with price projections for the current year and changes in percent packout and cullage from previous years.

   (3) F.O.B. prices should be used in making this estimate.

   (4) Multiply the number of units times the estimated value per unit to determine the total returns or initial estimated value of the crop.

   (5) Follow the same procedure for processed fruit (in many instances complete returns from processed fruit will be given and no estimate will be needed).

c) Each time a new packout sheet arrives along with an advance the estimated value of the stored crop should be updated using the following steps:

   (1) Enter the date.

   (2) Record the number of units sold or given in the advance if applicable.

   (3) Record the average price per unit if applicable.

   (4) Multiply the number of units times the dollars per unit to calculate the total return.

(5) Subtract the actual total returns (column 7) from the estimated total returns (column 4) of the same line.

(a) Record this amount on column 4 of the next line.

(b) This becomes the current estimated value.

(c) Don't forget to record the actual return on the Receipts form 1 so the account will balance in the record book.

d) This procedure should be repeated each time a return is received.

(1) If the estimated value was conservative you will reach a point where the estimated value is negative.

(a) If you are using the cash method for income tax return then you can discontinue calculating the estimated return at this point (though you may continue to account for unsold units).

(b) If you are using the accrual method of accounting you should continue calculating this value until all returns from sales are accounted for.

(2) If the estimated value was too high you will have a remaining estimated value even after you have received all crop returns.

(a) Again for cash accounting purposes this will have no meaning.

(b) For accrual accounting purposes this value must be maintained for income tax reporting.

3. How should the inventory of stored crops be used for accrual accounting purposes?

Use TM/HO-15 and TM/HO-I/8/1 to demonstrate how the inventory of stored crops for accrual accounting purposes.

a. For those orchardists who use the accrual method for income tax accounting the inventory of stored crops is useful in calculating crop receipts from year to year.

b. Use the following steps to determine the accrual change from one year to the next to complete the income tax return.

   1. For accrual accounting the inventory should be kept current as described previously.

   2. At the end of the year the crop receipts reported to the IRS will be the most current estimated returns plus or minus the accrued difference on the inventory of stored crops from the previous year.

4. How is information from the inventory of stored crops transferred to the profit and loss statement?

Use TM/HO-15, TM/HO-26, and TM/HO-I/8/1 to demonstrate how this information is carried to profit and loss statement.

a. For the purpose of the profit and loss statement only the estimated value of an unclosed account is calculated into the accrual change.

b. Transfer the most current value for each enterprise from the inventory of stored crops to the ending inventory column of the appropriate enterprise on Form 25 Profit and Loss Statement.

c. Follow the same procedure using the estimated stored crop value at the same month of the previous year. Enter this amount on the beginning inventory column of the appropriate enterprise.

d. Subtract the beginning inventory from the ending inventory to calculate the net change and enter that value on the Profit and Loss Statement.

e. Follow this procedure for each enterprise.

F. Group Discussion

Allow sufficient time for enrollees to ask questions about how they might inventory their particular commodity. Also encourage a discussion of what information they might find useful on their packout record.

G. Conclusions

1. Packout records used in conjunction with an inventory of stored crops can be a very useful tool in meeting the challenge of financial management with stored corps
2. Having a "handle" on the estimated value of crops in storage at any given time can help in cash flow planning and obtaining credit.
3. Packout records contain both physical characteristics and financial information about stored crops.
4. The inventory of stored crops should be updated each time returns from a given enterprise are received.
5. The upper block of Form 15 is designed to summarize packout physical characteristics for a given year.
6. The lower block of information on Form 15 is designed to keep a current estimate of the value of stored crops.
7. Any entry on the inventory under the actual return should be recorded on Form 2, Sources of Receipts.
8. The estimated value of stored crops is just that--an estimate-- and is only as good as the historic records used the calculate it.
9. Adjusting for inventory change on the Profit and Loss Statement is important to get a true picture of the profit and loss of the operation from year to year.

H. Orchard Visit

When visiting enrollees following this lesson work with enrollees on updating their inventory of stored crops using current years packout record.

I. Materials Needed

Instructor/Enrollee:

TM/HO-15	Inventory of Stored Crops
TM/HO-26	Profit and Loss Statement
TM/HO-I/8/1	Stored Crop Information Sample Orchard

Washington State University Coop Extension Bulletin 1217, Using Packout Records to Evaluate Your Orchards Financial Performance.

TM/HO-I/8/1

SAMPLE ENTRIES FOR THE STORED CROP INVENTORY

The following information can be used to complete the stored crop inventory. The information is taken from the packout records accompanying each advance. The most current packout record for each enterprise should be kept in this section of the record book.

1). D'Anjou - Enterprise 121 had a 95% packout with 65% extra fancy and 30% fancy. Average price for extra fancies was 16.00 and 14.00 for fancies. There were 3818 packed boxes sold (packed box weight = 44/lbs.). The grower had 8% cullage resulting in 7.5 Tons which were juiced and received 35.oo per ton. Peak size on packed boxes was 100's. Pool averages were 92% packout, 12% cullage, avg. 14.oo for extra fancies and 12.00 for fancies. The grower ranked 12 out of a pool of 70.

The grower estimated after harvest receiving 15.50 per packed box. Actual FOB returns were received as follows:

a). Harvest advance = 3733.00
b). 12/10 = 6500.00
c). 1/15 = 5200.00
d). 2/15 = 5200.00
e). 3/15 = 4500.00
f) 4/15 = 7755.00
g). 5/15 = 9555.00
h). 6/15 Final 17575.00

i). Cullage return was received 10/15 and equaled 262.50

2). Bartlett - Enterprise 122 had a 90 % packout with 60% of packout extra fancy and 30 % fancy. Average price for extra fancies was 16.00 and for fancies 14.00. There were 1545 packed boxes (weight = 44/lbs.). The grower had 10 % cullage resulting in 3.5 T of juicers which recieved 35.00 per ton. Peak size on packed boxes was 100's. Pool averages were 91 % packout with 60 % extra fancies and 30% fancies. Average pool price recieved was 14.00 on extras and 12.00 on fancies. Average pool cullage was 12% The grower ranked 15 of 70.

The grower estimated the average returns per packed box to be 15.50. The FOB returns he received were as follows.

a). Harvest advance = 1511.00
b). 10/15 = 5000.00
c). 11/15 = 5000.00

d). 12/15 Final Payment = 13000.00

e). Cullage return was received 10/15 and was 122.50

3). Starking - Enterprise 211 had a 85 % packout with 60% extra fancy and 25 % fancy. Average price for Extra's was 8.00 and fancies 6.00. There were 2940 packed boxes (weight 41 lbs.) which peaked on 110's. The grower had 10% cullage resulting in 5.3 tons which received 50.00 per ton. Pool averages were 82% packout with 50 % extra's and 32 % fancies. Pool average prices recieved were 8.00 for extra's and 5.00 for fancies, pool average cullage was 15%.

The grower estimated an average price per packed box to be 7.25 and received the following FOB returns.

a). 11/15 = 5650.00
b). 12/15 = 13455.00

c). Cullage returns = 265.00 and were received on 11/15.

4). Standard Goldens - Enterprise 212 had a 85% packout with 60% extra fancies and 25% fancies. The average price received for extra's was 8.00 and for fancies 7.00. There were 1438 packed boxes (weight 41 lbs.) which peaked on 100's. The grower had 10% cullage resulting in 2.57 tons which averaged 50.00 per ton. Pool averages were 80 % packout with 55 % extras and 25% fancies averaging 8.00 and 7.00 respectively. Pool average cullage was 15%.

The grower estimated and average price per packed box to be 7.50 and received the folowing FOB returns.

a). 1/15 = 7000.00
b). 2/15 = 5400.00
c). 3/15 = 9845.00

d). Cullage returns were received on 11/15 and equaled 128.50.

5). Oregon Spurs - Enterprise 313 had a 98 % packout with 78 % extra fancies and 25% fancies. The average price received for extras was 17.00 and 15.00 for fancies. There were 4024 packed boxes (weight 41 lbs.) and the grower peaked on 90's. The grower had 7 % cullage resulting in 6.3 tons which received 50.00 per ton. Pool averages were 95 % packout with 65 % extra fancies and 30 fancies. Average price was 16.00 for extras and 15.00 for fancies. Pool average cullage was 10%.

The grower estimated his average price to be 16.00 and received the following FOB returns:

a). Harvest advance = 3667.00
b). 1/15 = 9600.00
c). 2/15 = 11955.00
d). 3/15 = 12535.00
e). 4/15 = 11565.00
f). 5/15 = Final 14750.00

g). Cullage returns were received on 11/15 and equaled 315.00.

5). Spur Golden - Enterprise 314 had a 95 % packout with 70 % extra fancies and 25% fancies. The average price received for extras was 16.50 and 14.00 for fancies. There were 1564 packed boxes (weight 41 lbs.) and the grower peaked on 90's. The grower had 7 % cullage resulting in 2.57 tons which received 50.00 per ton. Pool averages were 92 % packout with 65 % extra fancies and 27 % fancies. Average price was 15.50 for extras and 13.00 for fancies. Pool average cullage was 10%.

The grower estimated his average price to be 15.00 and received the following FOB returns:

a). Harvest advance = 1425.00
b). 1/15 = 5600.00
c). 2/15 = 6550.00
d). 3/15 = 7775.00
e). 4/15 = Final 5500.00

g). Cullage returns were received on 11/15 and equaled 125.00.

FORM 15 YEAR 87

INVENTORY OF STORED CROPS

PAGE 2

ENT. #(S): 212
GROWER RANK: 20
PEAK SIZE: 110's

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	1438	41	133250
CULLS	2.57	2060	5140

	% PACKOUT	AVG. PRICE/UNIT GRADE: XF 60	AVG. PRICE/UNIT GRADE: F 25	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	85	8	7	10		50
POOL	80	8	7	15		

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/ UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/ UNIT	TOTAL RETURNS
FRESH	10/15	3250	7 50	24375 00			
	1/15			17375 00			7000 00
	2/15			11975 00			5400 00
	3/15			2130 00	Final		9845 00
				+2130 00			
PROCESSED	11/15				257	50	128 50

ENT. #(S): 313
GROWER RANK: 5 of 10
PEAK SIZE: 90's

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	4024	41	164984
CULLS	6.3	2000	6345

	% PACKOUT	AVG. PRICE/UNIT GRADE: XF 78	AVG. PRICE/UNIT GRADE: 20	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	98	17	15	7		50
POOL	95	16	15	10		50

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/ UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/ UNIT	TOTAL RETURNS
FRESH	10/15	4024	16 00	64384 00	Harvest	Adv	[illegible] 00
	1/15			60717 00			9600 00
	2/15			51117 00			11955 00
	3/15			38582 00			12525 00
	4/15			27017 00			11565 00
	5/15			15462 00	Final		14750 00
				+312 00			
PROCESSED	11/15				6.3	50 00	315 00

ENT. #(S): 314
GROWER RANK: 6 of 10
PEAK SIZE: 90's

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	1564	41	64124
CULLS	2.571	2000	5130

	% PACKOUT	AVG. PRICE/UNIT GRADE:	AVG. PRICE/UNIT GRADE:	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	95	16.50	14.00	7		50
POOL	92	15.50	13.00	10		

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/ UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/ UNIT	TOTAL RETURNS
FRESH	10/1	1564	15 00	23460 00	Harv	Adv	1425 00
	1/15			22035 00			5600 00
	2/15			15485 00			6550 00
	3/15			8935 00			7775 00
	4/15			1160 00	Final		5500 00
	5/15			<4310>			
PROCESSED	11/15				50	50	125 00

INVENTORY OF STORED CROPS

PAGE 1

FORM 15 YEAR 87

ENT. #(S): 121
GROWER RANK: 12 of 70
PEAK SIZE: 100'S

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	3218	44	167992
CULLS	7.5T	2000	15000

	% PACKOUT	AVG. PRICE/UNIT GRADE: XF 65	AVG. PRICE/UNIT GRADE: F 30	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	45	16.0	14.0	8		35
POOL	92	14.0	12.0	12		

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/UNIT	TOTAL RETURNS
FRESH	9/10	3818	15 51	59217 00	Harvest Adv.		3733 00
	12/10			55424 00			6500 00
	1/15			48984 09			5200 20
	2/15			43781 00			5200 09
	3/15			37584 09			4500 00
	4/15			34084 00			7755 00
	6/15			26329 09			9555 00
	7/15			16774 00	Final		17575 20
				<807>			
PROCESSED	10/15				7.5	35 00	262 50

ENT. #(S): 122
GROWER RANK: 15 of 70
PEAK SIZE: 100'S

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	1545	44	67,980
CULLS	3.5T	2000	7000

	% PACKOUT	AVG. PRICE/UNIT GRADE: XF 60	AVG. PRICE/UNIT GRADE: F 38	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	90	16.00	14.00	10		35
POOL	91	14.00	12.00	12		

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/UNIT	TOTAL RETURNS
FRESH	9/18	1545	15 51	23963	Harvest Adv.		1511
	10/15			22453			5000
	11/15			17452 23			5000
	12/15			15452 23	F[illegible]		13000
				<5[illegible]>			
PROCESSED	10/15				3.5	35 00	122 50

ENT. #(S): 211
GROWER RANK:
PEAK SIZE:

	UNITS	LBS./UNIT	TOTAL LBS.
PACKED	2140	41	120340
CULLS	5.3T	2000	10600

	% PACKOUT	AVG. PRICE/UNIT GRADE: XF 30	AVG. PRICE/UNIT GRADE: F 25	% CULLAGE	AVG. PRICE/UNIT CANNERS	AVG. PRICE/UNIT JUICERS
GROWER	85	8	6	10		50
POOL	82	7	5	10		50

	DATE	ESTIMATED VALUE STORED CROP # UNITS	$/UNIT	TOTAL RETURNS	ACTUAL RETURNS # UNITS	$/UNIT	TOTAL RETURNS
FRESH	10/10	2140	7 25	21815 -			
	11/15			13445 00			5650 00
	12/15			10015 00	Final		13455 20
				<3440>			
PROCESSED	11/15				5.3	50	265 00

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD RECORD KEEPING SYSTEM

I. Lesson 9: Recording Credit Sources

A. Review

The previous lesson, Maintaining a Record of Stored Crops, should be reviewed. Conclusions reached in the previous lesson include:

1. Packout records used in conjunction with an inventory of stored crops can be a very useful tool in meeting the challenge of financial planning with stored crops.
2. Having a "handle" on the estimated value of crops in storage at any given time can help in forward planning.
3. Packout records contain both physical characteristics and financial information about stored crops.
4. The inventory of stored crops should be updated each time returns from a given enterprise are received.
5. The upper block of Form 15 is designed to summarize packout physical characteristics for a given year.
6. The lower block of Form 15 is designed to keep a current estimate of the value of stored crops.
7. All entries on the inventory under actual returns should be recorded again on Form 2, Sources of Receipts.
8. The estimated value of stored crops in just that--an estimate--and is only as good as the historic records used in the calculation.
9. Adjusting for inventory change on the profit and loss statement is an important step in obtaining a true picture of the profitability of an operation from year to year.

B. Objective

To properly schedule and record payment of short intermediate and long term loans.

C. Motivation

1. Good credit relations are invaluable to orchardists in today's financial climate. Establishing and maintaining a positive relationship with your lender is one of the most important managerial skills you can obtain.

2. One of the most important factors in establishing and maintaining good credit relations is your ability to repay loans promptly and efficiently.

3. Having a good record keeping "routine" in relation to loan repayment will help you repay your loans promptly and efficiently.

4. As well as credit relations, a good loan repayment record can insure that you take full advantage of interest deductions for tax purposes, help you easily complete statements of net worth, and aid in cash flow planning from year to year.

D. Key Questions

1. What are the guidelines for recording the scheduling and repayment of production loans?

2. What are the guidelines for recording the scheduling and repayment of intermediate and long term loans?

E. Introduction of Information

1. What are the guidelines for recording the scheduling and repayment of production loans?

   Use TM/HO-17 and HO-I/9/1 to demonstrate how loan scheduling and repayment are recorded.

   a. Form 17, Production Loan Record, is designed to record the transactions involved in a given production loan normally within one year.

   b. General information about the loan is recorded in the upper left corner of Form 17.

      1) Record the lender and general terms of the loan including repayment periods and limitations on transactions etc.

2) Record the interest rate and actual percentage rate (APR).

   a) This information can be taken from the loan agreement signed with the lender.

   b) APR must be stated on that agreement and reflects the actual percentage rate of the loan when fees are calculated into the cost.

   c) Production loans vary from lender to lender as well as within an institution from customer to customer.

      (1) Many production loans allow for a "line-of-credit" which insures the necessary cash will be available for production costs but will save money by charging interest on funds only as they are used.

      (2) The availability of this form of production loan is often based on the borrowers credit record.

   d) Recording transactions for a "line-of-credit" production loan generally involves the following steps.

      (1) Record the total line of credit into column 11 (remaining principal available).

      (2) Throughout the year as funds are borrowed complete the appropriate information in the funds borrowed column.

         (a) Write the date of the transaction.

         (b) Complete the transaction description with any information pertaining to the loan.

         (c) If a particular item was purchased with all or part of the funds borrowed enter the purchase amount in column 3.

         (d) If the production loan was borrowed from a cooperative the gross funds borrowed and cooperative stock is entered in columns 4 and 5 respectively. In such a cas net borrowed equals column 4 minus column 5.

         (e) For non-cooperative loans enter the net borrowed in column 5.

   - (f) Add the net borrowed amount in column 5 to the accumulated principal borrowed from the preceding line and enter that amount to column 12 of the current line. For the first transaction the accumulated principal balance will be equal to the net borrowed amount.
   - (g) Next subtract the net borrowed amount from the remaining principal available of the previous line and enter in column 11 of the current line.

- (3) As funds are repaid throughout the year complete the appropriate information in the funds borrowed column.
   - (a) Record the date of the transaction.
   - (b) Complete the transaction description with any information pertaining to the loan.
   - (c) Record the total payment in column 7.
   - (d) Record the amount of payment which is interest in column 8.
   - (e) Record the principal payment in column 9.
   - (f) Record any accrued interest in column 10.
   - (g) Add the principal paid to the remaining principal available, column 11, of the previous line and record that amount in column 11 of the current line.

e) Recording production loans in which borrowed funds are received in one lump sum generally involves the following steps.

- (1) Record the date the funds were borrowed and any description of the loan agreement in columns 1 and 2 respectively.
- (2) If the loan is made through a cooperative enter the gross amount borrowed in column 4 and the coop stock purchased in column 5. The net borrowed, column 6, is equal to column 4 minus column 5.

(3) If no stock purchase was required with the loan simply enter net borrowed in column 6.

(4) If repayment takes place with several payments throughout the year use the following procedure.

  (a) Enter the date payment is made and any description that might be needed.

  (b) Enter the total payment in column 7.

  (c) Enter the breakdown of interest and principal in columns 8 and 9 respectively.

(5) For many agricultural production loans the principal is paid in one lump payment at the end of the year. However, making payment throughout the year is advisable in helping to reduce interest costs.

2. What are the guidelines for recording the scheduling and repayment of intermediate and long term loans?

Use TM/HO-18 and HO-I/9/1 to demonstrate how intermediate and long term loan scheduling and repayment are recorded.

a. Form 18, Repayment Schedule/Record-Intermediate/Long Term Loans, is designed to record 2 intermediate or long term loan transactions per page.

b. It will be advisable to avoid putting an intermediate and long term loan on one page.

c. General information about the loan is recorded in the upper block of the form. It is important to be thorough in recording this information as these loans will remain on the books from up to 40 years depending on the length of the repayment period.

d. The information recorded in the upper block includes:

  1) The lenders name and address. This is very important particularly in family emergencies where a member of the family not familiar with the daily operation of the business is forced to take over.

  2) If the loan is through a cooperative record the gross borrowed and the amount of stock purchased.

3) Enter the net borrowed amount. These are the funds available to you.

4) Give a description of the loan purpose. Make this description thorough enough that someone outside the daily operation of the business could identify the equipment or land involved.

5) Record the interest rate and actual percentage rate (APR). This information can be found on the loan agreement.

6) Record the date the loan originated.

7) Include a description of the terms of the loan such as number of payments per year, balloon payments, variable interest rate calculations, etc.

e. The lower block is divided into the repayment schedule and the repayment record.

f. Whatever the terms of the loan, the following general guidelines will be useful in recording transactions:

1) Completing the repayment schedule will help insure prompt and accurate payment of the loan and help in projecting the status of the loan for business analysis purposes.

(a) Most lending institutions will print out amortization schedules on request which will provide the information needed to complete the repayment schedule.

(b) Take time to record each due date.

(c) For most loans the payment due will be consistent. In which case simply enter the amount in the first date and run a line down the column for the remaining dates.

(d) Using the amortization schedule record the interest and principal due on each payment.

(e) For variable interest rates record the payment, interest and principal due for the period of time the interest rate is known.

(f) Remember to write in any balloon payments due in the time period covered by the schedule.

2) Completing the repayment record will provide and accurate account of what has transpired during the loan repayment period and keep a running balance of principal due.

   (a) Entries on the repayment schedule should be made each time a loan payment is made.

   (b) Enter the date payment was made.

   (c) Enter the total payment made.

   (d) If the payment is on schedule and full payment is made the interest paid and principal paid columns 7 and 8 respectively will be equal to the amounts on the repayment schedule.

   (e) Subtract the principal paid on the current line from the unpaid balance, column 9 of the previous line. If this is the first payment subtract principal paid from the net borrowed amount.

   (f) Remember to enter the interest and principal payment on the Distribution of Expenditures form columns 22 and 34 or 35 respectively.

F. Group Discussion

Time should be allowed for questions from enrollees on specific problems they have in keeping account of loan repayments.

G. Conclusions

1. Good credit relations are an invaluable tool to orchardists.

2. Having a good loan repayment "routine" will help establish and maintain good credit relations.

3. Keeping an accurate account of loan repayment will also help account for interest expenses for income tax purposes.

4. Form 17 is designed to record production loan transactions.

5. Production loans vary from lender to lender as well as within an institution from customer to customer. Many production loans are on a "line-of-credit" basis.

6. Form 18 is designed to record either intermediate or long term loans and can be used for loans of various terms.

7. It is important to record transactions on Form 17 and 18 at the time at which payment is made or funds are borrowed.

8. Always complete the loan information sections of the forms as if they were to be used by someone not familiar with the daily operation of the business.

H. Orchard Visit

On visits following this lesson take time to answer any question pertaining to enrollees loans. Help enrollees get loan repayment schedules up to date.

I. Materials Needed

Instructor/Enrollees:

Orchard Business Management Record Book

TM/HO-17	Production Loan Record
TM/HO-18	Repayment Schedule/Record--Intermediate/Long Term Loans
HO-I/9/1	Example Loan Transactions

HO-I/9/1

LOAN TRANSACTIONS FOR THE SAMPLE ORCHARD

Enter the following loan transactions on the appropriate loan form. Long term and intermediate term loans on form 18, and production loans on form 17.

EXAMPLE 1 In 1975 the operation borrowed 216,000 from the Federal Land Bank for the purchase of the 40 acre orchard. The interest rate was 5% fixed rate and the borrower was required to purchase .025% stock. The term of the loan was 15 years and payments were due once a year. Payment of principle and interest is due on March 15th of each year. To date he has made his payment on time each year.

The Amortization Schedule for the loan is as follows:

Date	Total Payment	Interest Due	Principle Due
3/15/76	20289.69	10530.00	9759.69
3/15/77	"	10042.02	10247.67
3/15/78	"	9529.63	10760.06
3/15/79	"	8991.63	11298.06
3/15/80	"	8426.73	11862.96
3/15/81	"	7833.58	12456.11
3/15/82	"	7210.77	13078.92
3/15/83	"	6556.83	13782.36
3/15/84	"	5870.18	14419.51
3/15/85	"	5149.21	15140.48
3/15/86	"	4392.16	15897.11
3/15/87	"	3597.31	16692.38
3/15/88	"	2762.69	17527.00
3/15/89	"	1886.34	18403.35
3/15/90	"	966.17	19323.52

EXAMPLE 2 In 1986 the orchard operation took out a 10 year loan to be used to help establish a high density planting of Royal Galas. The loan amount was for 13340.25 with the interest rate being 10% and having a 10 year term. The loan was aquired through the local bank, Washington Bank, and equity in the 40 acre orchard secured the loan. The orchardist put $5717 down. Loan payment was due yearly on the 15th of April. Once again to date the operation has met payment on time each year.

The Amortization schedule is as follows:

Date	Total Payment	Interest Due	Principle Due
4/15/87	2171.06	1334.03	837.04
4/15/88	"	1250.32	1033.26
4/15/89	"	1158.25	1012.81
4/15/90	"	1056.97	1114.09
4/15/91	"	945.56	1225.50
4/15/92	"	823.01	1348.05
4/15/93	"	688.20	1482.86
4/15/94	"	539.92	1631.14
4/15/95	"	376.80	1794.26
4/15/96	"	197.38	1973.68

EXAMPLE 3 In 1984 $8,700 was borrowed from Mountain Tractor Co. for the purchase of a 56 hp. 4 wheeldrive low profile tractor. The interest rate charged was 11% and the orchardist put $4,300 down. The loan duration is 5 years with payments due once per year on August, 30th. Once again our careful consumer has never been late on his payments.

The Amortization schedule for the loan is:

Date	Total Payment	Interest Due	Principle Due
8/30/85	2353.96	957.00	1396.96
8/30/86		803.33	1550.63
8/30/87		632.77	1721.51
8/30/88		443.43	1910.53
8/30/89		233.38	2120.73

HO-I/9/1

$ 508.33 was repaid on 6/15 with $500.00 going toward principal and $8.33 going toeard interest

$10,000 was borrowed June 30th for payment of Cherry harvest.

$5062.59 was repaid on July 30th with 83.33 going to interest and $4979.26 going to principal.

$5062.69 was repaid on August 30th with 41.84 going to interest and $5020.85 going to principal.

HO-I/9/1

EXAMPLE 4 In 1987 a new 87 Ford F250 4 wheeldrive pickup was purchased with the aid of credit. The operation borrowed $10,000 from the Ford Credit Company at 12% interest and traded in 78 Ford pickup for the down. The term of the loan is 3 years and payments are due each month. To date payments have been on time and are due the 15th of each month.

The Amortization Schedule for the 1st year is as follows:

Date	Total Payment	Interest Due	Principle Due
1/15/88	332.14	100.00	232.14
2/15/88		97.68	234.46
3/15/88		95.33	236.81
4/15/88		92.97	239.17
5/15/88		90.57	241.57
6/15/88		88.16	243.98
7/15/88		85.72	246.42
8/15/88		83.25	248.89
9/15/88		80.77	251.37
10/15/88		78.25	253.89
11/15/88		75.11	257.03
12/15/88		73.15	258.99

EXAMPLE 5 In March of 1988 the orchard operation, (after completing a Cash Flow Projection) determined it required a $15,000 line of credit for production expenses in the upcoming season. The interest rate for borrowed funds was 10% and a 2% patronage stock purchase was required. Funds could be borrwed on the 15th and last day of each month. The loan was borrowed through the local cooperative lender - Orchard Credit Coop.

The transaction took place as follows:

$2000.00 was borrowed on 3/15 for payment of prunners salaries

$ 500.00 was borrowed on 4/15 for payment of cover sprays

$2033.33 was repaid on 5/15 with 2000.00 going toward principal and $33.33 going toward interest.

FORM 18 YEAR(S)

REPAYMENT SCHEDULE/RECORD - INTERMEDIATE/LONG TERM LOANS

PAGE

LENDER: Federal Land Bank	GROSS BORROWED: $211,000	STOCK: .005%
NET BORROWED: 210,000	LOAN PURPOSE: 40 Acre Orchard	INTEREST RATE: 5%
DATE ORIGINATED: 3/2/75	TERMS: $13,200 Down $400 Stock 15 Year Payment due Annually	APR:

	REPAYMENT SCHEDULE							REPAYMENT RECORD									
	DATE DUE	TOTAL PAYMENT		INTEREST DUE		PRINCIPAL DUE		DATE PAID	TOTAL PAYMENT		INTEREST PAID		PRINCIPAL PAID		UNPAID BALANCE		
1	3/15/76	20281	[illegible]	10530	–	9750	69	3/15/76	20281	[illegible]	10530	–	9751	69	[illegible]	31	1
2	3/15/77	"		10442	02	10247	67	3/15/77	"		10442	02	10247	67	190592	64	2
3	3/15/78	"		9529	63	10760	66	3/15/78	"		9529	63	10760	66	179832	58	3
4	3/15/79	"		8991	63	11298	04	3/15/79	"		8991	63	11298	06	168534	52	4
5	3/15/80	"		8426	73	11262	76	3/15/80	"		8426	13	11262	76	156671	55	5
6	3/15/81	"		7833	55	12436	11	3/15/81	"		7833	52	12436	11	144215	44	6
7	3/15/82	"		7210	77	13078	12	3/15/82	"		7210	77	13078	72	131136	52	7
8	3/15/83	"		6556	83	13782	26	3/15/83	"		6556	33	13782	36	117403	66	8
9	3/15/84	"		5870	15	14419	51	3/15/84	"		5870	18	14419	51	102984	15	9
10	3/15/85	"		5149	21	15140	43	3/15/85	"		5149	21	15140	48	87843	67	10
11	3/15/86	"		4392	12	15891	51	3/15/86	"		4392	18	15817	51	71946	16	11
12	3/15/87	"		3597	31	16692	38	3/15/87	"		3597	31	16692	28	55253	18	12
13	3/15/88	"		2762	69	11527	00	3/15/88	"		2762	69	11527	00	27726	18	13
14	3/15/89	"		1886	31	12465	85										14
15	3/15/90	"		966	17	13325	52										15
16																	16
17																	17
18																	18
19																	19
20																	20
	1	2		3		4		5	6		7		8		9		

LENDER: Wn Bank	GROSS BORROWED: 13,340.25	STOCK:
NET BORROWED: 13,340.25	LOAN PURPOSE: Plant Gala Block	INTEREST RATE: 10%
DATE ORIGINATED: 4/86	TERMS: 10 Year Payment Annually 5717.25 Down	APR:

	REPAYMENT SCHEDULE							REPAYMENT RECORD									
	DATE DUE	TOTAL PAYMENT		INTEREST DUE		PRINCIPAL DUE		DATE PAID	TOTAL PAYMENT		INTEREST PAID		PRINCIPAL PAID		UNPAID BALANCE		
1	4/15/87	2171	6	1334	03	837	04	4/15/87	2171	6	1334	03	837	04	12503	2[illegible]	1
2	4/15/88	"		1250	32	1033	20	4/15/88	"		1250	32	1033	2[illegible]	11469	[illegible]	2
3	4/15/89							4/15/89									3
4	4/15/90							4/15/90									4
5	4/15/91							4/15/91									5
6	4/15/92							4/15/92									6
7	4/15/93							4/15/93									7
8	4/15/94							4/15/94									8
9	4/15/95							4/15/95									9
10	4/15/96							4/15/96									10
11																	11
12																	12
13																	13
14																	14
15																	15
16																	16
17																	17
18																	18
19																	19
20																	20
	1	2		3		4		5	6		7		8		9		

FORM 18 YEAR(S)

REPAYMENT SCHEDULE/RECORD - INTERMEDIATE/LONG TERM LOANS

PAGE

LENDER: Ford Motor Credit Co.	GROSS BORROWED: $10,000	STOCK:
NET BORROWED: $10,000	LOAN PURPOSE: 87 FORD F250 Pickup	INTEREST RATE: 12.00 (Fixed)
DATE ORIGINATED: 12/87	TERMS: 36 Months Fixed Monthly	APR:

	REPAYMENT SCHEDULE				REPAYMENT RECORD				
	DATE DUE	TOTAL PAYMENT	INTEREST DUE	PRINCIPAL DUE	DATE PAID	TOTAL PAYMENT	INTEREST PAID	PRINCIPAL PAID	UNPAID BALANCE
1	1/15/88	332 14	100 –	232 14	1/12/88	332 14	100 –	232 14	9767 86
2	2/15/88	"	97 68	234 46	2/12/88	"	97 68	234 46	9533 40
3	3/15/88	"	95 33	236 81	3/15/88	"	95 33	236 81	9296 59
4	4/15/88	"	92 97	239 17	4/15/88	"	92 97	239 17	9057 42
5	5/15/88	"	90 57	241 57	5/15/88	"	90 57	241 57	8815 85
6	6/15/88	"	88 16	243 98	6/15/88	"	88 16	243 98	8571 87
7	7/15/88	"	85 72	246 42	7/15/88	"	85 72	246 42	8325 45
8	8/15/88	"	83 25	248 89	8/15/88	"	83 25	248 89	8076 56
9	9/15/88	"	80 77	251 37	9/15/88	"	80 77	251 37	7825 19
10	10/15/88	"	78 25	253 89	10/15/88	"	78 25	253 89	7571 30
11	11/15/88	"	75 11	257 03	11/15/88	"	75 11	257 03	7314 27
12	12/15/88	"	73 15	258 99	12/15/88	"	73 15	258 99	7055 28
13									
14									
15									
16									
17									
18									
19									
20									
	1	2	3	4	5	6	7	8	9

LENDER: Mountain Tractor & Implement	GROSS BORROWED: 13000.00	STOCK:
NET BORROWED: 8700.00	LOAN PURPOSE: 4610 [illegible] Tractor	INTEREST RATE: 11
DATE ORIGINATED: 8/24	TERMS: $4300 Down 5 Year Payments Due Annually	APR:

	REPAYMENT SCHEDULE				REPAYMENT RECORD				
	DATE DUE	TOTAL PAYMENT	INTEREST DUE	PRINCIPAL DUE	DATE PAID	TOTAL PAYMENT	INTEREST PAID	PRINCIPAL PAID	UNPAID BALANCE
1	8/30/85	2352 96	951 00	1396 96	8/30/85	2352 96	951 00	1396 96	7303 04
2	8/30/86	"	803 33	1550 63	8/30/86	"	803 33	1550 63	5752 41
3	8/30/87	"	632 77	1721 15	8/30/87	"	632 77	1721 15	4031 26
4	8/30/87	"	443 43	1910 53	8/30/88	"	443 43	1910 53	2120 73
5	8/30/89	"	233 28	2120 73					
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
	1	2	3	4	5	6	7	8	9

FORM 17 YEAR

PRODUCTION LOAN RECORD

PAGE

LENDER: INTEREST RATE: DATE ORIGINATED:

TERMS: APR: MATURITY DATE:

			FUNDS BORROWED				FUNDS REPAYED			BALANCE			
	DATE	TRANSACTION DESCRIPTION	ITEM AMOUNT	GROSS $ BORROWED	COOP STOCK	NET $ BORROWED	TOTAL PAYMENT	INTEREST PAID	PRINCIPAL PAID	ACCRUED INTEREST	REMAINING PRINCIPAL AVAILABLE	ACCUM. PRINCIPAL BORROWED	
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
9													9
10													10
11													11
12													12
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20													20
21													21
22													22
23													23
24													24
25													25
	1	2	3	4	5	6	7	8	9	10	11	12	

FORM 18 YEAR(S)

REPAYMENT SCHEDULE/RECORD - INTERMEDIATE/LONG TERM LOANS

PAGE

LENDER: GROSS BORROWED: STOCK:

NET BORROWED: LOAN PURPOSE: INTEREST RATE:

DATE ORIGINATED: TERMS: APR:

	REPAYMENT SCHEDULE				REPAYMENT RECORD				
	DATE DUE	TOTAL PAYMENT	INTEREST DUE	PRINCIPAL DUE	DATE PAID	TOTAL PAYMENT	INTEREST PAID	PRINCIPAL PAID	UNPAID BALANCE
1									
2									
3									
4									
5									
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18									
19									
20									
	1		3	4	5	6	7		9

LENDER: GROSS BORROWED: STOCK:

NET BORROWED: LOAN PURPOSE: INTEREST RATE:

DATE ORIGINATED: TERMS: APR:

	REPAYMENT SCHEDULE				REPAYMENT RECORD					
	DATE DUE	TOTAL PAYMENT	INTEREST DUE	PRINCIPAL DUE	DATE PAID	TOTAL PAYMENT	INTEREST PAID	PRINCIPAL PAID	UNPAID BALANCE	
1										1
2										2
3										3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
17										17
18										18
19										19
20										20
	1	2	3	4		6	7	8	9	

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

II. Lesson 10: Establishing and Maintaining Family Living Records

A. Review

The previous lesson, Recording Credit Sources and Lease Arrangement, should be reviewed. List conclusions reached in the previous meeting. These conclusions might include:

1. Good credit relations are an invaluable tool to orchardists in today's financial climate.

2. Having a good record keeping "routine" in repayment of loans is one of the best means of establishing and maintaining good credit relations.

3. Form 17, Production Loan Record, is designed to record transactions involved in production or short term loans.

4. Many production loans are on a line-of-credit basis and require more record keeping skills and time.

5. Form 18 is designed to record either intermediate or long term loans and can be used for loans of various terms.

6. It is important to record transactions on Form 17 and 18 at the time payment is made or funds borrowed to maintain accuracy.

7. The loan information section should be completed in such a way that it would be useful to someone not familiar with the daily operation of the business.

B. Objective

To prepare and maintain family living records.

C. Motivation

1. Many times orchardists do not realize the amount they are spending for family living expenses during the year.

2. As with the orchard, family finances must be budgeted. Effective budgeting requires setting family goals and maintaining records of receipts and expenditures.

3. Many times orchardists do not realize the amount they are spending for family living expenses during the year. Often family expenses and receipts are tied into the orchard operation with excess income being spent on family living when available or family living suffering when cash flow is tight.

4. Income from orcharding does not come in neat regular amounts, but family living expenses come year round. If expenses and income are not balanced properly financial insecurity may occur.

D. Key Points

1. How should family records be organized?

2. What are some guidelines for keeping family living receipts and expenditures?

3. How can family records be used to create a budget?

4. What are some tips for managing seasonal income?

E. Introduction of Information

It is recommended that instructors make use of WSU Extension Area Home Economist for presentation of this information. Key points can serve as guidelines of desired topics to be covered. Additionally the following WSU Extension Guidesheets will aid the instructor in preparing for student questions on family living topics.

1. PNW Bulletin 237 A Guide to Budgeting for the Family

2. WSU Cooperative Extension Bulletin 0535 Organizing Family Records and Business Papers.

3. WSU Cooperative Extension Bulletin EB 1330 Setting Out Toward Financial Security.

4. WSU Cooperative Extension Bulletin ED 1420 Managing A Seasonal Income.

F. Group Discussion

This should include questions by enrollees to the guest speaker.

G. Conclusions

If conclusions are not established by guest speaker summarize with a list of conclusions gleaned from the guest speakers presentation.

H. Orchard Visit

Allow time during visits following this presentation to discuss the use of the family living section of the Orchard Business Management Record Book

I. Materials Needed

Instructor/Enrollees: Orchard Business Management Record Book

FORM 21 MONTH(S)

FAMILY LIVING RECEIPTS AND EXPENDITURES

PAGE YEAR

	EXPENDITURES																
										INTEREST		PRINCIPAL PAID						
	UTILITIES	RENT	HOME IMPRVMNT.	ENTERTAIN. /REC.	EDUCATION	MEDICAL EXPENSES	INSURANCE	CHARITABLE CONTRB.	TAXES	TAXABLE	NON-TAX.	INTERMED. LOANS	LONG-TERM LOANS					
1																	1
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3																	3
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5																	5
6																	6
7																	7
8																	8
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FORM 21 MONTH(S)

FAMILY LIVING RECEIPTS AND EXPENDITURES

PAGE YEAR

	RECEIPTS								EXPENDITURES							
	DATE	TOTAL RECEIPT	DESCRIPTION						DATE	TOTAL COST	CHK. #	DESCRIPTION	FOOD	CLOTHING	TELEPHONE	
1																1
2																2
3																3
4																4
5																5
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	1		3	4	5		7	8	9	10	11	2	13		15	

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

III. Lesson 11: Planning the Year's Cash Flow

A. Review

Review the previous lesson, Maintaining Family Living Records. Ask enrollees if they have begun to incorporate any of the ideas from the previous lesson into their routines.

B. Objective

To develop a planned cash flow projection for the orchard operation.

C. Motivation

1. Ask enrollees what percent of their total returns are received in various months. (Either choose one commodity or make a chart for each commodity group.) Write these percentages on TM-I/11/1.

2. Now ask enrollees what percent of their expenses occur in various months and write these on TM-I/11/1.

3. Start a discussion with enrollees on how they manage the differences between returns and expenses in a given month. Write their answers on the board or overhead and relate them to ideas present in the lesson.

D. Key Questions

1. What are the reasons for preparing a cash flow projection?

2. What are the steps in preparing a cash flow projection?

3. How can electronic spreadsheets aid in preparing a cash flow projection?

E. Introduction of Information

1. What are the reasons for preparing a cash flow projection?

Using TM-I/11/2,3 and 4 with the following points to discuss how cash flow projections can be useful in the orchard operation. Encourage enrollees to add to the list or give examples from their experiences.

a. Enable orchardists to better manage the fluctuating receipts and expenditures in the orchard business.

1) Crop returns are not distributed in even monthly increments over the year.

a) The largest percentage of north central Washington fruit crops are stored before sales with several months elapsing until the crop is sold.

b) TM-I/11/3 gives a breakdown of the lengths of time apples were stored prior to sales for various commodity groups in 1987.

2) Additionally the time at which crops sell varies from year to year. TM-I/11/4 gives a comparison of apple sales through the years 1985, 1986 and 1987.

3) Expenditures vary as well throughout the year. TM-I/11/4 a monthly breakdown for a 50 acre apple orchard.

4) Coordinating and planning for these returns and expenses is essential for the survival of the operation.

b. Necessary for determining credit needs.

1) Cash flow projections and summaries can let orchardists know if, where, and how much credit will be needed in the upcoming year.

2) In the short run, credit people are often more interested in the cash flow than the profitability of the operation. They want to be sure they get their money back.

3) Credit people like well planned cash flows because it eliminates "surprises" such as the need for $10,000 after the credit person thought the loan as large as it should be.

c. Cash flow planning can help in coping with "a stretch of bad luck."

1) For many orchardists in the 1987/88 crop year, an adequate cash flow meant the difference between staying in business or having to sell out.

2) This is particularly important to those just beginning in business because of the relatively high short term repayment demands.

        a) For example if a beginning orchardist has borrowed near the limit for short term loans, has "bad luck" with prices for a crop in a given year the loan repayment schedule may not be met even though the orchard business looks stable in the long run.

        b) Many orchardists have been forced out of business by borrowing to the limit on short term loans and not allowing for short term disasters.

d. Lower the cost of credit.

    1) Some banks, PCA's, and cooperative lenders have lower interest rates for customers who do a good job of planning cash flow needs and who can arrange their credit needs well in advance of the time needed.

    2) Additionally, most farm loans charge interest only on unpaid balance, the total interest is often less with a planned cash flow because principal may be paid faster even though it may necessarily be reborrowed in 30 to 60 days.

e. Develop a sound financial plan.

    1) Cash flow planning can help discourage impulse buying which is often a temptation with seasonal income.

    2) This may be the single most profitable advantage of a cash flow plan.

f. Allows new ideas to be tested on paper.

    1) If a plan won't show profit or desired cash flow on paper it probably won't in actual practice either.

    2) Many times after doing a cash flow projection it is obvious what decisions need to be made in the upcoming year.

g. Facilitate tax planning by guiding leveling of income from year to year.

2. What are the steps in preparing a cash flow projection?

Use TM-F24, TM/HO-I/11/5 and 6 to prepare a cash flow projection for the sample orchard on the overhead. Use the following steps to help guide this preparation. Have enrollees make entries for the sample orchard in their record books.

a. The first place to begin developing a cash flow projection is with a completed cash flow summary from the previous year.

1) Cash flow summaries provide a history of cash coming into and moving out of the operation over the previous years.

2) A detailed cash flow summary also distributes the movement of cash into appropriate months.

3) The more years of cash flow history an operation has the more accurate the projection will be. History, like experience for people, helps improve our ability to project ideas.

4) Make sure all totals for the cash flow are completed and written in red.

b. Step two of preparing a cash flow projection is to estimate yield, prices and distribution of returns for crops in the next year.

1) For many orchardists the cash flow projection will be prepared while much of the previous crop is in storage. If this is the case refer to form 15 and the most current packout record for the estimated value of the remaining stored crop.

a) Adjust this estimate if necessary.

(1) Based on the previous year's returns to date, cash flow summary for the previous year and current yellow sheet prices.

(2) Remember to set an accurate yet conservative price, i.e. try to underestimate returns. You're not trying to impress, you are trying to exist.

b) Now determine the amount of this estimated return you will receive each month and enter that amount into the appropriate column.

2) Next estimate the yield, price and monthly distribution for returns from crops grown in this season.

a) Estimate yields and returns.

(1) Use previous year's packout records, cash flow summary and yellow sheets.

(2) Remember to consider any major foreseeable changes in cropping systems such as new plantings coming into increased production, decreased bearing in older orchards, removal of orchards and changes in cultural practices.

b) Distribute those estimated returns to the appropriate months of the year. Remember only those returns you estimate you will receive in the current "cash flow year" should be included.

c) Once again use accurate but conservative estimates to the low side.

d) Repeat this procedure for the remaining enterprises.

c. Step three is to estimate returns for the remaining income items.

1) Do a step by step evaluation as to whether any foreseeable increase or decrease in a particular item will occur.

2) Use the previous year's cash flow summaries to aid in valuing each income item and distributing it to the appropriate month.

3) Use conservative figures to set values. Do not base income entries with what you "hope" to receive but what is the minimum you anticipate.

d. Step four is to estimate the expenditures of the operation over the coming "cash flow year."

1) Hired labor is one of the largest expenses to the orchard business. Therefore a good analysis of labor costs for the upcoming year will be a valuable tool in preparing an accurate cash flow projection.

a) Sources of information to base these projections include previous year's payroll forms 4 and 5, cash flow summaries and summary of fixed and variable costs.

b) Analyze any change in the orchard operation effect on hired labor costs. These changes might include:

(1) Increase or decrease in producing acreages.

(2) Increase or decrease in per unit wage.

            (3) Increase in labor hours due to new plantings coming into bearing.

            (4) Increase or decrease in the availability of unpaid family labor.

            (5) Tax or unemployment insurance increases.

        c) Distribute labor costs to the appropriate months.

2) Estimates for production expenses should then be established and entered on Form 25.

    a) Analyze each production expense on an expense by expense basis as to how changes in the operation might increase or decrease that expense in the upcoming year.

    b) Use previous cash flow summaries, plus warehouse supply lists for several years to establish an adjustment each year for inflation.

    c) Distribute production expense estimates into appropriate month.

    d) Once again estimates should be on the high side so cash requirements will surely be met.

3) Estimates of fixed costs should be made and entered. Particular attention should be paid to interest costs. These should reflect current interest rates on production loans and appropriate rates on variable intermediate and long term loans.

4) Make sure to include planned purchases of capital items such as tractors, additional orchards, new plantings, etc..

5) Increase or decrease in family living expense should be examined.

    a) As described in lesson 10 a family living budget is important in managing seasonal income.

    b) Try to anticipate and include increases in family living expenses such as new arrivals in the family, educational expenses, medical expenses, home improvement expenses, etc.

6) Enter intermediate and long term principal payments due throughout the year.

e. Step 5 is to calculate the cash difference for each month and credit repayments and borrowing needs each month.

1) Add the total dollars available by adding lines 1 - 24 for each month.

2) Add the total dollars used by adding lines 25 - 55 for each month.

3) Determine the cash difference by subtracting total dollars available - total dollars used (A - B) and enter that amount in C.

4) Determine the cash available before borrowing by adding C to the Cash Balance at the end of the previous month F.

5) Determine whether you will repay on the production loan if D is positive or borrow on a production loan if D is negative.

6) Determine the cash balance at the end of the month E from the cash before borrowing D.

7) Now calculate the Production Loan Balance by adding the value of E to the previous production loan balance G.

8) The highest figure on line G should be used as a basis for establishing the production loan balance available for the current year. Some "play" should be added to this amount. Loan officers would be helpful in estimating the additional balance needed.

3. How can electronic spread sheets aid in preparing cash flow projections?

Demonstrate the use of the Cash Flow Projection Template with the Sample Cash Flow Projection. Allow time for enrollees to suggest adjustments. When demonstration is complete allow students time to make entries from their own operation on the cash flow projection program. Have enrollees print out the final projection to include in their record book summary section. Some advantages for using electronic spreadsheets for cash flow projections which may be discussed include:

a. Seldom does a planned cash flow provide adequate cash on the first trial. It is almost always an exercise in compromise.

b. The "what if" approach is very important to completing a workable cash flow projection. This enables the orchardist to look at all options available to have a successful "cash flow year."

c. Depending solely on paper, pencil, calculator and a very good eraser can make cash flow projection a frustrating endeavor, which often results in incomplete data.

d. Electronic spreadsheets are very useful tools for playing "what if" with finances and are an invaluable tool in cash flow analysis.

F. Group Discussion and Activity

Let enrollees discuss advantages and disadvantages of completing a cash flow, some of the problems in getting one done and ideas on how to use it effectively. Be sure to include a discussion on factors that will influence the cash flow from year to year. Make sure to answer any questions as to the use of electronic spreadsheets for cash flow analysis.

G. Summary/Conclusion

1. Cash flow projections should increase profits because of better planning, lower credit costs and more effective tax planning.

2. Cash flow projections are required by most lending institutions for borrowing funds.

3. Cash flow projections can help manage seasonal income.

4. Cash flow projections help prevent impulse buying.

5. The steps in preparing a cash flow projection are:

   a. Complete a cash flow summary for the previous year.

   b. Estimate yield, price and distribution by month of crop returns in the "cash flow year."

   c. Estimate returns and monthly distribution of those returns in the "cash flow year."

   d. Estimate the expenses and monthly distribution of those expenses on the cash flow projection.

   e. Calculate the cash difference and credit repayment and borrowing for each month and the production loan balance needed for the "cash flow year."

6. A good source of information for a cash flow projection includes previous years cash flow summaries, packout records, crop inventories, payroll forms and fixed/variable summaries.

7. Try to establish accurate but conservative estimates for crop returns and other income.

8. Try to overestimate on expenses to the operation which are not finite such as hired labor and other production expenses.

9. Make adjustments from previous year's records based on planned changes to the operation.

10. "What if" analysis of cash flow projections can be greatly enhanced with the aid of electronic spreadsheet programs.

H. Orchard Visit

1. Make sure the completed cash flow projection is based on realistic values for receipts and expenditures for this particular operation. Discuss with enrollees major adjustments in the operation in the coming year and how those adjustments are reflected in the cash flow projection.

2. It would be advisable to take along a portable computer and cash flow software so additional "what if" questions pertaining to cash flow could be answered on site.

3. Answer any question about other aspects of the record keeping system.

I. Materials Needed

Instructor/Enrollees:

Orchard Business Management Record Book

TM-I/11/1	Percentage Distribution of Crop Sales and Orchard Expenses over the year.
TM-I/11/2	Reasons for Preparing a Cash Flow Projection

TM-I/11/3	Red Delicious Storage Time 1985, 1986, 1987
TM-I/11/4	Breakdown of Total Costs by Month for 40 acre Block Red Delicious apples
TM-25	Form 25 Cash Flow Projection/Summary
TM/HO-I/11/5	Sample Orchard Cash Flow Summary
TM/HO-I/11/6	Suggested Adjustment Factors for Cash Flow Projection Sample Orchard
Computer Lab:	providing IBM compatible computers, 640K RAM, 20 megabyte hard disk
LOTUS 1-2-3	
Cash Flow Projection Template	

TM-I/11/1

DISTRIBUTION OF CROP SALES AND EXPENSES OVER THE YEAR

MONTH	PERCENT OF TOTAL RECEIPTS	PERCENT OF TOTAL EXPENSES
JANUARY		
FEBRUARY		
MARCH		
APRIL		
MAY		
JUNE		
JULY		
AUGUST		
SEPTEMBER		
OCTOBER		
NOVEMBER		
DECEMBER		

TM-I/11/2

REASONS FOR PREPARING CASH FLOW PROJECTIONS

- IMPROVE MANAGEMENT OF FLUCTUATING RECIEPTS AND EXPENDITURES
- DETERMINE CREDIT NEEDS
- ALLOWS FOR A "STRETCH OF BAD LUCK"
- LOWER COST OF CREDIT
- REDUCE IMPULSE BUYING
- ALLOW NEW IDEAS TO BE TESTED ON PAPER
- FACILITATE LEVELING OF INCOME FOR INCOME TAX MANAGEMENT

APPLES

PERCENTAGE OF TOTAL FRESH APPLES SOLD

MONTH	PERCENTAGE 83-84	PERCENTAGE 84-85	PERCENTAGE 85-86
SEPT. 30	12.56	7.70	12.60
OCT. 31	19.51	20.1	20.60
NOV. 30	18.00	18.28	17.99
DEC. 31	14.40	15.94	15.28
JAN. 31	12.27	12.89	12.27
FEB. 28	9.91	10.50	9.61
MARCH 31	7.75	8.46	7.06
APR. 30	5.60	6.13	4.58

TM-I/11/4

DISTRIBUTION OF TOTAL CASH COSTS OVER A YEAR FOR A 40 ACRE BLOCK OF RED DELICIOUS

MONTH	MONTHLY TOTAL	PERCENT OF TOTAL
JANUARY	$1,761.00	1.55 %
FEBRUARY	$25,740.00	22.67 %
MARCH	$7,476.00	6.59 %
APRIL	$6,955.00	6.13 %
MAY	$13,525.00	11.91 %
JUNE	$11,631.00	10.25 %
JULY	$5,323.00	4.69 %
AUGUST	$3,942.00	3.47 %
SEPTEMBER	$26,780.00	23.59 %
OCTOBER	$3,808.00	3.35 %
NOVEMBER	$4,821.00	4.25 %
DECEMBER	$1,761.00	1.55 %
TOTAL	$113,523.00	100 %

TM/HO-I/11/5

ADJUSTMENTS FOR NEXT YEAR'S CASH FLOW PROJECTION

USE THE FOLLOWING INFORMATION PLUS LAST YEAR'S CASH FLOW SUMMARY TO COMPLETE A PROJECTION FOR NEXT YEAR FOR THE SAMPLE ORCHARD.

RECEIPTS

1. D'ANJOU (121): NEXT YEAR'S YIELD IS ABOUT 10% LESS THAN LAST YEAR'S YIELD DUE TO SPOTTY POLLINATION. HOWEVER, PRICES ARE PROJECTED TO BE STRONGER AND THE GROWER ESTIMATES VERY SIMILAR GROSS RETURNS. TO PLAY IT "SAFE" THE GROWER DECIDES TO REDUCE RETURNS BY 2% FROM LAST YEAR'S RETURNS.

2. BARTLETTS (122): YIELDS ARE VERY SIMILAR TO LAST YEAR'S YIELDS AND WITH A PROJECTED PRICE INCREASE, THE GROWER EXPECTS FROM A REDUCTION IN CULLAGE (NO FROST RINGS!), HE PROJECTS A 2% INCREASE IN RETURNS OVER LAST YEAR'S CROP. HE EXPECTS THE MONTHLY DISTRIBUTION OF THESE RETURNS TO BE SIMILAR.

3. STARKINGS (211): THE GROWER ESTIMATES A 10% DROP IN YIELD FROM LAST YEAR DUE TO SPOTTY POLLINATION AND POOR RETURN BLOOM. HE ESTIMATES THE PRICES HE RECEIVES WILL BE SIMILAR (THEY ARE GOING COMMON STORAGE AGAIN) AND HIS SIZE DISTRIBUTION AND CULLAGE LOOK THE SAME.

4. STANDARD GOLDENS (212): HE HAS ABOUT A 2% DROP IN YIELD FOR HIS STANDARD GOLDENS FROM THE PREVIOUS YEAR. HE EXPECTS SIMILAR PRICES FOR THE YIELD HE HAS.

5. OREGON SPUR (311): HE HAS ABOUT AN 8% DROP IN YIELD OF HIS OREGON SPUR BLOCK. HE ESTIMATES HOWEVER, THAT PRICES WILL BE 5% HIGHER SO HE IS EXPECTING AN OVERALL CHANGE IN GROSS RETURNS OF 3%.

6. SPUR GOLDS (312): HE IS ANTICIPATING SIMILAR YIELDS AND PRICES FOR SPUR GOLDS.

7. BINGS (531), LAMBERTS (532), AND VANS (533): YIELD AND PRICE FOR THESE COMMODITIES ARE HARD TO PREDICT FROM YEAR TO YEAR. THE GROWER USES A FAIRLY UNOPTIMISTIC GROSS RETURN FROM YEAR TO YEAR THAT IS 20% LESS THAN THE GROSS RETURNS FOR THE PREVIOUS YEAR.

TM/HO-I/11/5

ADJUSTMENTS FOR NEXT YEAR'S CASH FLOW PROJECTION

USE THE FOLLOWING INFORMATION PLUS LAST YEAR'S CASH FLOW SUMMARY TO COMPLETE A PROJECTION FOR NEXT YEAR FOR THE SAMPLE ORCHARD.

EXPENDITURES

1. NET WAGES. THE GROWER HAS SPENT A GREAT DEAL OF TIME OVER THE YEARS ESTIMATING AVERAGE HOURS OF LABOR USED FROM YEAR TO YEAR. HE FINDS LAST YEAR TO BE A VERY AVERAGE YEAR, HOUR-WISE. HE DOES HOWEVER, SEE AN INCREASING TREND IN WAGES PER UNIT AND ESTIMATES ON AVERAGE AN 8% INCREASE IN NET WAGES PAID FROM LAST YEAR.

2. LIKEWISE, HE INCREASES HIS ESTIMATE OF FICA, FUTA, AND STATE UNEMPLOYMENT INSURANCE BY 8%.

3. HE HOLDS THE ESTIMATE OF STATE WORKERS COMPENSATION TO THE SAME LEVEL AS LAST YEAR, SINCE THIS VALUE IS BASED ON THE HOURS WORKED NOT THE WAGES PAID.

4. THE GROWER HAS BEEN VERY PLEASED WITH THE RESULTS OF HIS PEST CONTROL PROGRAM BUT AFTER TALKING WITH HIS SHED, HE PROJECTS A 4% INCREASE IN THE PRICE OF CROP CHEMICALS.

5. LIKEWISE, HE PROJECTS A 4% INCREASE IN COSTS OF FERTILIZERS.

6. HE ASSUMES HIS IRRIGATION ASSESMENT WILL REMAIN THE SAME.

7. HE ALSO ASSUMES HIS UTILITY COSTS WILL REMAIN THE SAME.

8. WITH GROWING TENSION IN THE PERSIAN GULF AREA, HE HAS READ ESTIMATES OF GASOLINE PRICES GOING FROM AN AVERAGE OF $1.00 TO $1.10 A GALLON. HE ADJUSTS HIS FUEL COSTS 8% OVER THE PREVIOUS YEAR.

9. HE EXPECTS TO HAVE TO PURCHASE NEW ALL SEASON TIRES ON HIS FOUR WHEEL DRIVE TRUCK. HE ESTIMATES THE PURCHASE TO BE $480 IN MARCH.

TM/HO-I/11/5

ADJUSTMENTS FOR NEXT YEAR'S CASH FLOW PROJECTION

USE THE FOLLOWING INFORMATION PLUS LAST YEAR'S CASH FLOW SUMMARY TO COMPLETE A PROJECTION FOR NEXT YEAR FOR THE SAMPLE ORCHARD.

EXPENDITURES

10. IN HIS MOST RECENT CHECK ON THE ORCHARD HE COUNTED 50 TREES NEEDING REPLACEMENT. AT $4.50 PER TREE, PLUS $2.00 REPLANT TREATMENT PER TREE, HE ESTIMATES A COST OF $325 TO BE PAID IN MAY.

11. HE PROJECTS A 2% JUMP IN MACHINERY MAINTENANCE COSTS OVER LAST YEAR'S COSTS.

12. HE ESTIMATES A 3% RISE IN IRRIGATION COSTS NEXT YEAR.

13. TAXES WILL REMAIN SIMILAR.

14. HIS VEHICLE INSURANCE WILL INCREASE $500 PER YEAR (PAYABLE IN AUGUST), DUE TO HIS SON'S RECENT ACCIDENT IN THE PICK-UP (NO ONE WAS HURT, AND IT ONLY CRUMPLED THE BACKSIDE OF A YUGO).

15. INTEREST SHOULD BE ENTERED FROM LOAN REPAYMENT SCHEDULES.

16. HE ASSUMES WAREHOUSE CHARGES WILL BE SIMILAR.

17. MISCELLANEOUS SERVICES. HE FORESEES A $750 INCREASE DUE TO LEGAL FEES ASSOCIATED WITH FORMING A PARTNERSHIP WITH HIS DAUGHTER. ALONG WITH THIS WILL BE A $1,200 DECREASE ($100 PER MONTH) SINCE BOOKKEEPING WILL NOW BE PERFORMED BY HIS WIFE.

18. HE ESTIMATES A 3% INCREASE IN MISCELLANEOUS SUPPLIES.

19. OWNER/FAMILY SALARY. WITH HIS WIFE REDUCING HER OFF FARM WORK BY ONE HALF, AND TAKING OVER THE FINANCIAL END OF THE BUSINESS, HE FORESEES AN ADDITIONAL $1,000 PER MONTH IN SALARIES.

20. TAKE FIGURES FOR INTERMEDIATE AND LONG TERM LOANS FROM THE LOAN SCHEDULE FORMS.

21. NOW CALCULATE ITEMS A, B, C, D, E, F, AND G FOR THIS CASH FLOW PROJECTION.

FORM 24

CASH FLOW SUMMARY/PROJECTION

SUMMARY

YEAR 82

RECEIPTS	#	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
CROP RECEIPTS: ENT. #(S): 121	1	5200	3356	4500	7755	9555	17575			3780				51721
ENT. #(S): 122	2									1560		16500	5330	23390
ENT. #(S): 211	3										2040	28230	10600	40870
ENT. #(S): 212	4										850	13500	3467	17817
ENT. #(S): 313	5	6000	7473	12535	17565	14750					4800			63123
ENT. #(S): 314	6	5400		14205	5500					2410				27515
ENT. #(S): 531	7								34081					34081
ENT. #(S): 532	8								8109					8109
ENT. #(S): 533	9								3173					3173
ENT. #(S):	10													
ENT. #(S):	11													
ENT. #(S):	12													
ENT. #(S):	13													
ENT. #(S):	14													
ENT. #(S):	15													
ENT. #(S):	16													
CUSTOM WORK	17				210	210	210	210	210					1050
COOP PATRONAGE DIV./REF. ($ ONLY)	18													
PITAL SALES	19													
INTEREST	20	243	243	250	230	250	170	70	70	180	150	210	230	2366
BORROWED FUNDS (SUMMARY ONLY)	21							10,000			1150			11150
OTHER:	22													
NON-FARM INCOME	23													
TOTAL DOLLARS AVAILABLE	A	17403	11072	31610	31310	24765	17955	10280	46263	7610	9020	55750	19827	285505
EXPENDITURES														
LABOR: NET WAGES	24	3220	3064	2505			11710	7672	1823	7850	2547			41481
FICA/FED. INCOME TAX W/HOLDING	25	255		953				2140	1243		1517			6108
FUTA/STATE UNEMPLOY. INSURANCE	26	122			440			583			732			1877
STATE WORKERS COMPENSATION	27	233			829			850			902			2814
MISCELLANEOUS BENEFITS/HOUSING	28													
PEST CONTROL	29				1297	1560	816	1536	1948	102				7257
FERTILIZER/LIME	30			90	1007			25	10			90	405	1627
IRRIGATION ASSESSMENT	31				1922			400						2322
UTILITIES	32	59	88	46	92	43	101	65	327	65	75	150	65	1176
FUEL/OIL	33			372	222	462	252	329	395	320	350			2702
TRUCK/AUTO	34		229	350		25			16		85			705
REPLACEMENT TREES	35					400								400
MACHINERY MAINTENANCE	36		563	25		212	150		132	61				1143
IRRIGATION/BUILDING MAINTENANCE	37				250	150	75	150	400	11	25			1061
TAXES	38			2750	2234	3692			43					8719
INSURANCE	39		1800						350	350				2500
INTEREST	40	100	98	2852	1343	90	82	86	610	81	120	75	73	5612
REHOUSE CHARGES: PACKING/HANDLING	41	7969	3179	11602	11124	8596	5774		4876			31250	10010	94670
CROP STORAGE	42								6685					6685
IND CHG.	43	348	227	425	413	323	237		860			1197	383	4434
OTHER: Misc. Service	44	100	100	500	100	2000	100	100						3000
Misc. Supplies	45	20	50	75	30	55	75	20			120	25	20	500
	46													
	47													
CAPITAL PURCH.: TREES/CAPITL'Z. EXP.	48			2200	200	410	725	610	134					4279
DEPRECIATED ITEMS	49										1500			1500
NON-DEPRECIATED ITEMS	50													
PRODUCTION LOANS (SUMMARY ONLY)	51								4980		5020			10000
INTERMEDIATE LOANS	52	232	234	237	1273	242	244	246	2159	251	254	257	259	5888
LONG TERM LOANS	53			17527										17527
MILY LIVING/OPERATORS SALARY	54	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	3500	20000
TOTAL DOLLARS USED	B	14218	11052	44015	24276	22920	22098	16192	28161	10571	15827	34654	14715	258699
CASH DIFFERENCE FOR MONTH (A - B)	C													
CASH BEFORE LOAN (C +/- F PREV. MO.)	D													
PROD. LOAN PROCEEDS + OR REPAYMENTS -	E													
CASH BALANCE END OF MONTH (D +/- E)	F													
PROD. LOAN BAL. (G PREV. MO. +/- E)	G													
		JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL

IRRIGATION ASSESSMENT	31													
UTILITIES	32													
FUEL/OIL	33													
TRUCK/AUTO	34													
REPLACEMENT TREES	35													
MACHINERY MAINTENANCE	36													
IRRIGATION/BUILDING MAINTENANCE	37													
TAXES	38													
INSURANCE	39													
INTEREST	40													
WAREHOUSE CHARGES: PACKING/HANDLING	41													
CROP STORAGE	42													
	43													
OTHER:	44													
	45													
	46													
	47													
CAPITAL PURCH.: TREES/CAPITL'Z. EXP.	48													
DEPRECIATED ITEMS	49													
NON-DEPRECIATED ITEMS	50													
PRODUCTION LOANS (SUMMARY ONLY)	51													
INTERMEDIATE LOANS	52													
LONG TERM LOANS	53													
FAMILY LIVING/OPERATORS SALARY	54													
TOTAL DOLLARS USED	B													
CASH DIFFERENCE FOR MONTH (A - B)	C													
CASH BEFORE LOAN (C +/- F PREV. MO.)	D													
PROD. LOAN PROCEEDS + OR REPAYMENTS -	E													
CASH BALANCE END OF MONTH (D +/- E)	F													
PROD. LOAN BAL. (G PREV. MO. +/- E)	G													
		JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL

FORM 24

CASH FLOW SUMMARY/PROJECTION

EAR

RECEIPTS	#	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
CROP RECEIPTS: ENT. #(S):	1													
ENT. #(S):	2													
ENT. #(S):	3													
ENT. #(S):	4													
ENT. #(S):	5													
ENT. #(S):	6													
ENT. #(S):	7													
ENT. #(S):	8													
ENT. #(S):	9													
ENT. #(S):	10													
ENT. #(S):	11													
ENT. #(S):	12													
ENT. #(S):	13													
ENT. #(S):	14													
ENT. #(S):	15													
ENT. #(S):	16													
CUSTOM WORK	17													
COOP PATRONAGE DIV./REF. ($ ONLY)	18													
CAPITAL SALES	19													
INTEREST	20													
BORROWED FUNDS (SUMMARY ONLY)	21													
OTHER:	22													
NON-FARM INCOME	23													
TOTAL DOLLARS AVAILABLE	A													
EXPENDITURES														
LABOR: NET WAGES	24													
FICA/FED. INCOME TAX W/HOLDING	25													
FUTA/STATE UNEMPLOY. INSURANCE	26													
STATE WORKERS COMPENSATION	27													
MISCELLANEOUS BENEFITS/HOUSING	28													

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ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

IV. Lesson 12: Preparing the Year's Financial Statement

A. Review

The previous lesson, Planning the Year's Cash Flow should be reviewed. List conclusions reached in the previous meeting. Possible conclusions may include:

1. Cash flow projections can increase profits because of better planning, lower credit costs, and more effective tax planning.
2. Cash flow projections are required by most lending institutions for borrowing funds.
3. Cash flow projections can help manage seasonal income.
4. Cash flow projections help prevent impulse buying.
5. The steps in preparing a cash flow projection are:
    a. Complete a cash flow summary for the previous year.
    b. Estimate yield, price and distribution by month of crop returns in the "cash flow year."
    c. Estimate returns and monthly distribution of those returns in the "cash flow year."
    d. Estimate the expenses and monthly distribution of those expenses on the cash flow projection.
    e. Calculate the cash difference and credit repayment and borrowing for each month and the production loan balance needed for the "cash flow year."
6. A good source of information for a cash flow projection includes previous years cash flow summaries, packout records, crop inventories, payroll forms and fixed/variable summaries.
7. Try to establish accurate but conservative estimates for crop returns and other income.
8. Try to overestimate on expenses to the operation which are not finite such as hired labor and other production expenses.

9. Make adjustments from previous year's records based on planned changes to the operation.

10. "What if" analysis of cash flow projections can be greatly enhanced with the aid of electronic spreadsheet programs.

B. Objective

To prepare a financial statement and understand how it can be used for the analysis of the orchard operation.

C. Motivation

1. Financial statements are one of the most important indications of the internal economic health of the orchard operation.

2. Lenders in particular rely heavily on the financial statement, along with the cash flow, in determining how much additional money a business might be able to borrow. Most lenders are required to have a copy of a current financial statement for all borrowers.

3. Operators can use the financial statement to observe the operations progress from year to year.

D. Key Questions

1. How are assets and liabilities classified on the financial statement?

2. What are some guidelines for completing a financial statement?

3. How can financial ratios help analyze business progress?

4. What do lenders look for in a financial statement?

E. Introduction of Information

1. Use TM-I/12/1 and TM-I/12/2 to aid in discussing the classification of assets and liabilities on the financial statement.

    a. Assets fall into one of three classifications. These classifications are:

        1) Current Assets. This classification of assets is made up of cash and other assets which can be converted to cash through the normal operation of the business in a year. This would include stored crops, cash in savings and checking accounts, accounts receivable and marketable securities.

2) Intermediate Assets. This classification of assets is made up of capital items with a useful life of one to ten years.

   a) Intermediate assets of the orchard operation are generally depreciable and consist of machinery, equipment, single purpose buildings and manufactured homes.

   b) Fruit trees, though classified for tax purposes as 7 year property, would generally be found under fixed assets rather than intermediate assets. Though the trend toward planting systems which encourage early production may change this.

3) Fixed Assets. These assets are more permanent in nature and consist of land, buildings, trees and land improvements.

   a) Fixed assets are generally depreciable (except for land which is "permanent" and therefore has no "useful life.")

   b) The remaining book value of depreciable fixed assets often does not reflect the true value of these assets and fair market value may be a more appropriate method of valuation.

b. There are three classifications of liabilities which allow for a good appraisal of the debt structure of the orchard operation. These classifications are:

1) Current Liabilities. This classification of liabilities is made up of debts due within the next 12 months. This includes production loans, accounts payable, accrued interest due within 12 months, accrued taxes due within 12 months and the portion of fixed and intermediate loans due within the year.

2) Intermediate Liabilities. This classification of liabilities includes debts with terms greater than one year but less than 10 years.

   a) Loans for intermediate assets such as machinery and equipment as well as any debt on land, trees or other fixed assets which has a total term of finance of less than 10 years.

b) The amount of intermediate loan due within 12 months should appear under current liabilities and is subtracted from the amount appearing under intermediate liabilities.

3) Long Term Liabilities. These liabilities consist of debts with terms of greater than 10 years. They include mortgages and land contracts minus the principal due within the next 12 months.

2. What are some guidelines for completing the Financial Statement - Form (26).

Use TM-26 to discuss with enrollees each line item on the financial statement and where that information is obtained from the Record Book. Demonstrate how to make entries from TM/HO-I/12/3 onto TM-25 and have enrollees work along making sample entries into their record books.

a. General guidelines

1) The financial statement should be completed at least once a year. This procedure should be done at the same time each year to gain an accurate assessment of the year to year progress of the orchard operation.

2) The timing of the yearly financial statements will vary from one orchard operation to another. Many will time it at the end of the tax year, while others will time it shortly before going in for seasonal production loans.

3) A current financial statement should always be completed before meeting with loan officers to acquire credit.

4) Remember the financial statement is only as accurate as the least accurate inventory used to complete it.

1. Make sure preparing the financial statement is proceeded by an update of inventories.

2. It is also important to update credit repayment schedules.

5) Form 25 is designed to separate business assets from personal assets. It is important to have both for lenders but imperative to have the business assets sorted out for business analysis purposes.

6) Enter the date of the financial statement on the top of Form 26.

b. Form 26 is designed to correspond with information from other forms in the Orchard Business Management Record Book and may be completed as follows.

   1) Enter cash on hand on line 1.

   2) Lines 2 - 7 are designed to specify balances from several accounts. Generally at least 4 accounts should be maintained Orchard Business checking and savings and Family Living checking and savings. Enter the account # and whether it is checking or savings.

   3) Lines 8 - 23 are taken from the Inventory of stored crops column 4 (estimated crop value).

   4) Enter accounts receivable from Form 16, Accounts Receivable, and the sum of the most current balance (column 2) for each transaction on line 24.

   5) Line 25 is the cash value of life insurance owned - not face value.

   6) Line 26 is for stocks or bonds which can be converted to cash within 12 months or 6 month treasury certificates.

   7) Line A is total current assets and is the sum of lines 1 through line 27. Totals should be made in red.

   8) Lines 28 through 31 are designed for vehicles; include the make, model and year of these vehicles.

      a) If the vehicle is used for both personal and orchard use enter the total value and divide that into business and personal use.

      b) Use fair market value of the item from form 13 or obtain blue book value from bank.

   9) Line 32 is the total value of machinery and equipment for the current year.

      a) This should be taken from the total of column 20 for the current year minus the value of the business share of vehicles on line 28 through 31.

   b) It will be helpful to take along the current depreciation schedule when obtaining credit, in case an itemized account of machinery and equipment is required by the lender.

10) Line 33, patronage stock is stock tied up in cooperatives, PCA, FLB or Grower's Credit which cannot be readily turned into cash at will.

11) Line 34 includes any stocks, bonds or treasury certificates which cannot be converted to cash within the next year without suffering penalties.

12) Lines 35 and 36 include other intermediate assets such as home furnishings, personal items, notes and accounts receivable.

13) Line B, total intermediate assets, is equal to the sum of line 28 through line 36. Write the total in red.

14) Lines 37 - 40 are taken from the total of column 6 of the current year on form 10, Land Inventory. This should include the value of only the land. Real estate components of the land should be broken out.

15) Line 41 Trees, should be taken from one of two forms in the record book.

    a) The total of column 3 for the current year of Form 10, Inventory of Land.

    b) The sum of the totals of column 12 for the current year of form 11 plus the total of column 22 for the current year of form 12.

16) Line 42 is the total of column 20 for the current year of form 14.

17) The fair market value of the residence should be included on line 43.

18) Lines 44 - 47 is other fixed assets which might include recreational property, other dwellings on the operation, etc..

19) Line C is the Fixed Asset total and is equal to the sum of lines 37 - 47.

20) Line D is the sum of all assets and is equal to Line A + B + C.

21) Lines 48 - 53, Production/Short Term Loans is taken from Form 17, line 12. Short term personal loans may be listed here as well.

22) Line 54, Accounts Payable is taken from the sum of the most current balances from Form 16.

23) Line 55, portion of intermediate loan due within 12 months is taken from the sum of the most recent entries on Line 4 for each intermediate loan.

24) Line 56, portion of long loan due within 12 months is taken from the sum of the most recent entries on line 4 for each long term loan.

25) Line 57 Accrued Taxes, is made up of any accrued taxes on income, social security or property.

26) Line 58 Accrued Interest, includes interest that has accrued on loans that have not yet been paid. This could be determined by the sum of the differences of column C - G for each loan on form 18 plus interest due on short term loans.

27) Line 58 and 59 include any other current liabilities.

28) Line E equals the sum of lines 48 through line 60. Write the total in red.

29) Lines 61 - 64 include the principal balance due on loans for vehicles. For autos or trucks used for both business and personal use separate the total between the business and personal use. This information for business vehicles is found on form 18.

30) Lines 65 - 68 are designed as a breakdown of loans for machinery and equipment. The principal balance can be found on Form 19 column 17 for each loan. Include the name of the lender. Make sure the principal due in the next 12 months is included under current assets and is subtracted from this total.

31) Lines 71 - 73 are designed to record real estate loans or loans for plantings of new orchards with less than a 10 year term.

32) Line F is the sum of lines 61 - 71, total intermediate liabilities.

33) Lines 72 - 75 are designed to record fixed loans for real estate. This value does not have to be broken down by the real estate components but some description of the land should be included.

34) Lines 76 - 77 are designed to record loans for new plantings of orchards with a term greater than 10 years.

35) Lines 78 - 79 are designed to record long term loans for the construction of buildings.

36) If the personal residence is on a separate loan from the orchard operation include that value on line 80.

37) Include any additional real estate loans on lines 81 and 82.

38) Line G is total fixed liabilities and is the sum of line 72 - 82.

39) The contingent tax liability is an estimate of what taxes would be owed if the operation were liquidated.

40) Line H Total Liabilities, is equal to lines E, F, and G, plus the contingent tax liability.

41) Net worth (total assets - total liabilities) is equal to line D - line H).

42) Change in net worth line J, is obtained by subtracting the net worth line J, from the previous year from the net worth this year. This is a measurement of business progress. When large changes are noticed a line by line comparison of the financial statement between two years can help locate the major changes.

7. How can financial ratios help analyze business progress?

Use TM/HO-I/12/4 to help discuss the meaning of the different financial ratios. Figure the financial ratios for the sample orchard and discuss their meaning within the operation.

a. The current ratio is equal to current assets divided by current liabilities. This is a measure of liquidity and represents the operation's ability to meet obligation for the current liabilities.

1) For this example a current ratio of 3:1 means there is $3.00 of current assets to meet each $1.00 worth of current liabilities.

2) If a situation arises where there is not enough cash to meet current obligations a shift in the financial statement (sale of an intermediate asset or taking an intermediate loan for example) may be necessary to offset this problem.

b. The current debt ratio is equal to current liabilities divided by total liabilities and is also a measure of liquidity. This ratio reflects the percentage of the total debt due within 12 months.

1) For example a current debt ratio of 1 to 2.5 means that 40% of the debt of the operation must be paid within the year.

2) The higher the percentage of this ratio the higher the current cash needs of the operation. Again a high ratio may indicate the need to shift some current debt into intermediate financing.

c. Current debt to net worth is equal to current liabilities divided by net worth. This ratio is a good indicator of the ability to shift current debt load into intermediate or fixed assets.

1) This ratio reflects each dollar of current debt to the dollar of owner equity in the operation.

2) The higher the ratio the less equity the owner has in the operation.

d. The debt to worth ratio is a measure of leverage and is equal to the total liabilities divided by the net worth. This is a good indication of how solid the operation is.

1) This ratio indicates the dollars of borrowed funds to owner equity and the higher the percentage of this ratio the less the owner owns in the operation.

2) The higher the percentage of this ratio the less likely additional lenders will lend.

e. The net capital ratio is equal to the total assets divided by the total liabilities. This is a measure of solvency.

1) This represents the dollars of assets to dollars of liabilities. For example a ratio of 4 to 1 indicates $4.00 of assets for each $1.00 of debt.

2) The greater the net capital ratio the larger the operator's share in the business.

3) This ratio reflects the ability to pay off all debts if a business were forced to liquidate, therefore it indicates to lenders the difficulty they would have in recouping their loan.

f. Average total assets and average total liabilities are information used along with facts from the profit and loss statement for determining indicators of profitability of the operation.

8. What do lenders look for in a financial statement?

Use TM-I/12/5 to discuss the four points a lender will look for in the financial statement to determine the financial position of the operation.

a. Financial Position - By looking at the net worth, a lender gets a window on the operation's financial picture. The net worth is probably the most important figure on the financial statement.

b. Progress - A lender can measure the progress of the borrower by observing the changes in net worth of each year. Though a lender might not be concerned with a lack of increase or slight decrease from one year to the next generally a profitable business shows growth in net worth over time.

c. Size and type of business - The lender gets a picture of the size and type of business by seeing total assets and liabilities and observing where most of these assets are located. In other words, are they fixed or inactive assets or active assets such as machinery and equipment.

d. Ratios - The lender will definitely look at ratios. These ratios can help the lender and operator stay in safe position when establishing a loan relationship.

1) These ratios will also aid in keeping current, intermediate and long term debt in correct relationship with each other.

2) Lenders vary as to the ratio they like to see.

F. Group Discussion

Allow sufficient time to ensure all enrollees understand where information for the financial statement and financial ratios is obtained. Ask enrollees what they feel their lenders look at most strongly on the financial statement in determining their financial position.

G. Conclusions

Conclusions which may be reached include:

1. The financial statement is one of the most important indicators of the financial health of the orchard operation.
2. Lenders rely heavily on the financial statement and cash flow in determining how much a business may borrow.
3. Current assets are cash or assets which can be converted to cash through the normal operation of the business in a year.
4. Intermediate assets are those capital items with a life of one to ten years.
5. Fixed assets are permanent and consist of land and other real estate assets.
6. Current liabilities are those debts due within one year.
7. Intermediate liabilities are those debts due between one and ten years.
8. Fixed liabilities are those debts with a term greater than ten years.
9. Form 25 is designed to correspond with information from other forms in the Orchard Business Management Record Book.
10. The financial statement should be completed at least once a year. This should take place at approximately the same time each year.
11. A financial statement is only as accurate as the least accurate inventory used to complete it.
12. Personal and business assets should be kept separate on the financial statement.
13. The current ratio and current debt ratio are measures of liquidity or measures of the operation's ability to meet current obligations.

14. The debt to worth ratio is a measure of leverage and is a good indicator of how solid the business is.

15. The net capital ratio is a measure of solvency and reflects the ability of the business to pay off all debts should the business be forced to liquidate.

16. Lenders can generally use the financial statement to evaluate the financial position, progress, size and type of business and ratios to assess the financial picture of the operation.

H. Orchard Visit

When visiting enrollees following this lesson take time to help them analyze their financial statement. Make sure realistic values were placed on assets. Pay particular attention to machinery equipment, land, trees and buildings. Work through the financial ratios with them and discuss the implications and options they might choose should problems arise.

I. Materials Needed

Instructor/Enrollees:

TM-I/12/1	Classification of Assets
TM-I/12/2	Classification of Liabilities
TM/HO-I/12/3	Financial Ratio Analysis
TM-I/12/4	What Does A Lender See in a Financial Statement
TM-25	Form 25 - Financial Statement
TM/HO-I/12/5	Sample Entries for the Financial Statement

CLASSIFICATION OF ASSETS

- CURRENT ASSETS

  CASH OR OTHER ASSETS THAT CAN BE CONVERTED TO CASH THROUGH THE NORMAL OPERATION OF THE BUSINESS THROUGHOUT THE YEAR

- INTERMEDIATE

  RESOURCES OR PRODUCTION ITEMS WHOSE USEFUL LIFE IS BETWEEN ONE AND TEN YEARS

- FIXED OR LONG TERM

  ASSETS THAT ARE PERMANENT IN NATURE

CLASSIFICATION OF LIABILITIES

- * CURRENT LIABILITIES

  DEBTS DUE WITHIN THE OPERATING YEAR

- * INTERMEDIATE LIABILITES

  DEBTS DUE FROM ONE TO TEN YEARS

- * LONG TERM LIABILITIES

  MORTGAGES AND LAND CONTRACTS SET UP FOR MORE THAN TEN YEARS

TM/HO-I/12/3

SAMPLE ENTRIES FOR THE FINANCIAL STATEMENT

Much of the information for the Financial statement may be taken from other forms in the record book. These forms include the Depreciation Schedules/Inventories, Land Inventory, and the Fixed Intermediate and Production Loan repayment schedules.

Additional Information you will require to complete the form includes the following:

1). The orchardist has 4 bank accounts these include:

a).	Personal Checking	2001-20	1500.00
b).	Personal Savings	2001-30	4000.00
c).	Business Checking	2050-20	10000.00
d).	Business Savings	2050-30	15000.00

2). The cash value of life insurance policies is 2000.00

3). The family has 7000.00 in 6 month CD's.

4). The appraised value of personal items is 7000.00.

5). The family has a 1986 Suburu with a Blue Book value of 8000.00.

6). The accumulated value of patronage stock is 9000.00.

7). The couple has a retirement mutual funds portfolio valued at 57,000.00.

8). The personal residence is worth 45,000.00

9). They also own a lake cabin valued at 45,000.00.

10). The business accounts payable is 200.00.

11). Personal accounts payable (credit cards) is 200.00.

12). The orchardist calculates his maximum contingent tax liability to be 75,647.00.

13). The net worth for the previous year equals 424271.00 for the orchard, and 133841.00 for personal assets.

FORM 25

FINANCIAL STATEMENT

Jan. YEAR 87

ASSETS		ORCHARD BUSINESS	PERSONAL	TOTAL
CURRENT ASSETS				
CASH ON HAND	1	100	50	150
CHECKING/SAVINGS ACCOUNT #: 2001-20	2		1500.00	1500
ACCOUNT #: 2001-20	3	4000		4000
ACCOUNT #: 2050-20	4	10000		10000
ACCOUNT #: 2050-30	5	15000		15000
ACCOUNT #:	6			
ACCOUNT #:	7			
STORED CROPS: ENT. #(S): 121	8	28500		28500
ENT. #(S): 122	9			
ENT. #(S): 211	10			
ENT. #(S): 212	11			
ENT. #(S): 313	12	35600		35600
ENT. #(S): 314	13	19570		19570
ENT. #(S):	14			
ENT. #(S):	15			
ENT. #(S):	16			
ENT. #(S):	17			
ENT. #(S):	18			
ENT. #(S):	19			
ENT. #(S):	20			
ENT. #(S):	21			
ENT. #(S):	22			
ENT. #(S):	23			
ACCOUNTS RECEIVABLE	24	0		0
CASH VALUE LIFE INSURANCE	25		2000	2000
STOCKS/BONDS READILY MARKETABLE W/IN 1 YR.	26	0	7000	7000
OTHER: Household/Personal Assets	27		7000	7000
TOTAL CURRENT ASSETS	A	112770	17550	130320
INTERMEDIATE ASSETS				
VEHICLES: 86' Suburu	28		8000	8000
81 Chev Blazer 75% Orch	29	3000	1000	4000
87 Ford 4WD Pickup	30	12000		12000
	31			
MACH./EQUIP. (TOTAL FROM INVENTORY)	32	49110		49110
PATRONAGE STOCK	33	9000		9000
STOCK/BONDS (Retirement - Mutual Funds)	34		57000	57000
OTHER:	35			
	36			
TOTAL INTERMEDIATE ASSETS	B	73110	66000	139110
FIXED ASSETS				
ORCHARD LAND: 42.5 Acres	37	300000		300000
	38			
	39			
	40			
TREES (TOTAL FROM DEP. AND CAPIT'Z SCHDL.)	41	32158		32158
BUILDINGS (TOTAL FROM DEPREC. SCHEDULE)	42	24900		24900
PERSONAL RESIDENCE	43		45000	45000
OTHER REAL ESTATE: Lake Cabin	44		45000	45000
	45			
	46			
	47			
TOTAL FIXED ASSETS	C	407058	90000	497058
TOTAL ASSETS (A + B + C)	D	592938	173550	766427

LIABILITIES		ORCHARD BUSINESS	PERSONAL	TOTAL
CURRENT LIABILITIES				
PRODUCTION/SHORT TERM LOANS:	48			
	49			
	50			
	51			
	52			
	53			
ACCOUNTS PAYABLE	54	200	205	405
PORTION OF INTERMED. LOAN DUE W/IN 12 MONTHS	55	6780		6780
PORTION OF FIXED LOANS DUE W/IN 12 MONTHS	56	18403		18403
ACCRUED TAXES	57	800		800
ACCRUED INTEREST	58			
OTHER:	59			
	60			
TOTAL CURRENT LIABILITIES	E	26183	205	26388
INTERMEDIATE LIABILITIES				
AUTO/TRUCK LOANS: Ford Motor Credit	61	3747		3747
	62			
	63			
	64			
MACHINERY/EQUIPMENT LOANS:	65			
Mt. Tractor - Snowblower	66	810		810
	67			
	68			
TREES: WA Bank - Gala Planting	69	10457		10457
	70			
OTHER:	71			
TOTAL INTERMEDIATE LIABILITIES	F	15014		15014
FIXED LIABILITIES				
ORCHARD REAL ESTATE:	72			
FLB - 40 Acre Orchard	73	19323		19323
	74			
	75			
TREES:	76			
	77			
BUILDINGS:	78			
	79			
PERSONAL RESIDENCE	80			
OTHER REAL ESTATE: Lake Cabin	81		29504	29504
	82			
TOTAL FIXED LIABILITIES	G	19323	29504	48827
CONTINGENT TAX LIABILITY	83	75647	0	75647
TOTAL LIABILITIES (E + F + G + 83)	H	136167	29709	165876
NET WORTH (D-H)	I	456771	143841	600612
CHANGE IN NET WORTH (CURR. N.W. - PREV. N.W.)	J	32500	10000	42500
FINANCIAL RATIOS				
CURRENT RATIO (CURR. ASSETS/CURR. LIAB. A/E)	K	4.31	35.61	4.94
CURRENT DEBT RATIO(CURR. LIAB./TOTAL LIAB E/H)	L	.19	–	.16
CURR. DEBT TO WORTH (CURR. LIAB/NET WORTH E/I)	M	.06	–	.04
LEVERAGE (TOTAL LIABILITIES/NET WORTH H/I)	N	.30	.21	.28
SOLVENCY (TOTAL ASSETS/TOTAL LIABILITIES D/H)	O	4.35	6.84	4.62
AVG. TTL. ASSETS (D PREV. YR. + D CURR. YR.)/2	P	575438	166050	741488
AVG. NET WORTH (I PREV. YR. + I CURR. YR.)/2	Q	440521	138841	579362

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FINANCIAL RATIO ANALYSIS

CURRENT RATIO -- current assets divided by current liabilities. This is a measure of "liquidity" and indicates whether or not a business can pay its current debts. If the ratio is less than 1 to 1 (current liabilities exceed current assets), working or fixed assets may have to be sold to pay current debts. A ratio between 1 to 1 and 2 to 1 may mean working capital and family living cash will be seriously limited. A current ratio of 3 to 1 indicates good current strength. A ratio higher than this indicates the business is not expanding to its potential rate.

Poor current ratios are often the result of too much short-term financing -- so, the solution may be to shift some current liabilities to long-term liabilities, as an example.

INTERMEDIATE RATIO -- intermediate assets divided by intermediate liabilities. This is often called "working ratio" since it involves assets as cows, tractors, etc., which are working for us. This ratio should also be close to 3 to 1.

NET CAPITAL RATIO -- is total assets divided by total liabilities. This is a measure of "solvency". Most lenders prefer this ratio to be 2:1 or better as a general rule. It means the farmer has one dollar invested for each dollar the lender has loaned in the business. Some exceptions to the previous statement are: (1) a younger person can stand narrower ratios; (2) a person with outside fixed income can stand narrow ratios; and 93) a "small" debt can be safer on a narrow ratio.

Some reasons this ratio is so important to a lender are: (1) if it is too narrow, problems come up due to higher interest cost in relation to percent return on investment, (2) debt servicing can become a problem, etc. How can an unsatisfactory ratio be corrected? Quite often it involves selling some assets and paying part of the debts. Which assets to sell requires much planning in order to maintain the current profit picture. Often this can be done to increase net profit as well as correct unsatisfactory ratios.

DEBT:NET WORTH RATIO -- total liabilities divided by net worth. This is often called a measure of "leverage". It is a measure of the dollars invested by a business compared to those borrowed. "Leverage" means to use someone else's money to make money. As an example, if a 12 percent return can be earned on total farm capital and interest cost of borrowed capital is 8 percent; then, leverage is working to the advantage of the farmer. However, it should be recognized that increasing amounts of leverage increases the amount of risk in case the return on total farm capital drops below interest cost as might happen in event of drought, lower market prices, higher death loss than expected, etc. A ratio of 1:1 here would be the same as a "Net Capital Ratio" of 2:1. Lenders generally prefer a 1:1 debt:net worth ratio or less.

TM/HO-I/12/5

WHAT DOES A LENDER SEE IN A FINANCIAL STATEMENT?

- FINANCIAL POSITION
- PROGRESS
- SIZE & TYPE OF BUSINESS
- RATIOS

ORM 25

FINANCIAL STATEMENT

YEAR

ASSETS		ORCHARD BUSINESS	PERSONAL	TOTAL	LIABILITIES		ORCHARD BUSINESS	PERSONAL	TOTAL
CURRENT ASSETS					CURRENT LIABILITIES				
CASH ON HAND	1				PRODUCTION/SHORT TERM LOANS:	48			
CHECKING/SAVINGS ACCOUNT #:	2					49			
ACCOUNT #:	3					50			
ACCOUNT #:	4					51			
ACCOUNT #:	5					52			
ACCOUNT #:	6					53			
ACCOUNT #:	7				ACCOUNTS PAYABLE	54			
TORED CROPS: ENT. #(S):	8				PORTION OF INTERMED. LOAN DUE W/IN 12 MONTHS	55			
ENT. #(S):	9				PORTION OF FIXED LOANS DUE W/IN 12 MONTHS	56			
ENT. #(S):	10				ACCRUED TAXES	57			
ENT. #(S):	11				ACCRUED INTEREST	58			
ENT. #(S):	12				OTHER:	59			
ENT. #(S):	13					60			
ENT. #(S):	14				TOTAL CURRENT LIABILITIES	E			
ENT. #(S):	15								
ENT. #(S):	16				INTERMEDIATE LIABILITIES				
ENT. #(S):	17				AUTO/TRUCK LOANS:	61			
ENT. #(S):	18					62			
ENT. #(S):	19					63			
ENT. #(S):	20					64			
ENT. #(S):	21				MACHINERY/EQUIPMENT LOANS:	65			
ENT. #(S):	22					66			
ENT. #(S):	23					67			
CCOUNTS RECEIVABLE	24					68			
ASH VALUE LIFE INSURANCE	25				TREES:	69			
TOCKS/BONDS READILY MARKETABLE W/IN 1 YR.	26					70			

INTERMEDIATE ASSETS				
EHICLES:	28			
	29			
	30			
	31			
ACH./EQUIP. (TOTAL FROM INVENTORY)	32			
ATRONAGE STOCK	33			
TOCK/BONDS	34			
THER:	35			
	36			
OTAL INTERMEDIATE ASSETS	B			
FIXED ASSETS				
RCHARD LAND:	37			
	38			
	39			
	40			
REES (TOTAL FROM DEP. AND CAPTL'Z SCHDL.)	41			
ILDINGS (TOTAL FROM DEPREC. SCHEDULE)	42			
ERSONAL RESIDENCE	43			
THER REAL ESTATE:	44			
	45			
	46			
	47			
OTAL FIXED ASSETS	C			
OTAL ASSETS (A + B + C)	D			

FIXED LIABILITIES				
ORCHARD REAL ESTATE:	72			
	73			
	74			
	75			
TREES:	76			
	77			
BUILDINGS:	78			
	79			
PERSONAL RESIDENCE	80			
OTHER REAL ESTATE:	81			
	82			
TOTAL FIXED LIABILITIES	G			
CONTINGENT TAX LIABILITY	83			
TOTAL LIABILITIES (E + F + G + 83)	H			
NET WORTH (D-H)	I			
CHANGE IN NET WORTH (CURR. N.W. - PREV. N.W.)	J			
FINANCIAL RATIOS				
CURRENT RATIO (CURR. ASSETS/CURR. LIAB. A/E)	K			
CURRENT DEBT RATIO(CURR. LIAB./TOTAL LIAB E/H)	L			
CURR. DEBT TO WORTH (CURR. LIAB/NET WORTH E/I)	M			
LEVERAGE (TOTAL LIABILITIES/NET WORTH H/I)	N			
SOLVENCY (TOTAL ASSETS/TOTAL LIABILITIES D/H)	O			
AVG. TTL. ASSETS (D PREV. YR. + D CURR. YR.)/2	P			
AVG. NET WORTH (I PREV. YR. + I CURR. YR.)/2	Q			

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

V. Lesson 13: Preparing the Profit and Loss Statement

A. Review

The previous lesson, Preparing the Year's Financial Statement should be reviewed. List conclusions reached from the previous lesson on the board or overhead. Address any concerns or problems enrollees encountered in completing their Financial Statement. Possible conclusions from the previous lesson include:

1. The financial statement is an important indicator of the general "health" of the orchard operation.
2. Lenders rely heavily on the financial statement along with the cash flow in determining how much a business may borrow.
3. Current assets include cash or other assets which can be converted to cash through the normal operation of the enterprise within the year.
4. Intermediate assets are those capital items with a useful life of one to ten years.
5. Fixed assets are permanent and consist of land, trees and other real estate assets.
6. Current liabilities are those debts due within the year.
7. Intermediate liabilities are generally thought of as those liabilities due between one and ten years.
8. Fixed liabilities are those debts with a term greater than 10 years.
9. The financial statement should be completed at least once a year. This should take place at approximately the same time each year.
10. A financial statement is only as accurate as the least accurate inventory used to complete it.
11. Personal and Business assets and liabilities should be kept separate on the financial statement.
12. The current ratio and current debt ratio are measures of liquidity or measures of the operations ability to meet current obligations.

13. The debt to worth ratio is a measure of leverage and is a good indicator of how solid the business is.

14. The net capital ratio is a measure of solvency and reflects the ability of the business to pay off all debts should the business be forced to liquidate.

B. Objective

To prepare a profit and loss statement and understand how it may be used for the analysis of the orchard operation.

C. Motivation

1. Ask enrollees some of the first things a doctor does whenever they visit for an appointment.

2. Some of the "indicators" doctors use to establish your health status are similar to indicators loan officers look for in determining the financial health of an orchard operation.

3. Blood Pressure = Cash Flow
   Temperature = Financial Statement
   Weight = Profit and Loss

4. It is a comparison which must be viewed from year to year; how trim are you, how much excessive fat (expenses) do you have, and how much muscle (income) you have.

D. Key Questions

1. What does the profit and loss statement tell about the financial health of the operation?

2. What are the guidelines for completing the profit and loss statement - Form 27?

3. What measures of profitability are important in analyzing business performance and progress?

E. Introduction of Information

1. What does the profit and loss statement tell about the financial health of an operation?

   Use TM-I/13/1 to guide a discussion on what information can be obtained from the profit and loss statement.

a. The profit and loss statement reflects all income generated by the operation and expenses paid to generate that income.

b. This indicator of profitability is for a specific period of time, usually a year, as is the case for the financial statement.

c. Comparisons of profit and loss statements from year to year indicates the growth or lack there of, of a given operation.

d. Comparison of profit and loss statements from one operation to another, of similar type and size can be useful in evaluating the effectiveness of management.

e. Typically a profit and loss statement reflects not only cash income and expenses, but inventory changes, gain or loss on capital items sold and non-cash expense such as depreciation.

f. The profit and loss statement when used in conjunction with the financial statement and cash flow is an invaluable tool for analyzing strengths and weaknesses of the operation, forward planning and projecting the growth of the operation.

g. The profit and loss statement can prove useful in helping determine whether a business can take on more debt and will be required by most lenders.

h. The profit and loss statement can also show money available for future investment.

    1) Some of the depreciation may need to be added back in to reflect capital available for depreciation.

    2) However it must be realized that depreciation must be paid in the long run in the form of investing in replacement of capital items if the profitability of the business is to be maintained.

2. What are the guidelines for completing the Profit and Loss Statement Form 27?

Using TM/HO-26 and TM/HO-I/13/2 demonstrate how a profit and loss statement is completed. Have enrollees work along, making entries on F26 to be placed in the back of the record book for future reference.

a. Like all summary forms the Profit and Loss Statement, Form 26, corresponds directly to the other entry forms of the Orchard Business Management Record Book.

b. Most of the cash entries of income and expenses may be directly entered from the totals on the cash flow summary.

   1) Crop receipts can be entered from the total column of corresponding lines on the cash flow summary. Remember to write the appropriate enterprise number on the Profit and Loss Statement.

   2) Custom Work, Interest and Other income may also be entered from the total column of the corresponding lines on the cash flow summary. Remember to write in the names of the Other income lines.

   3) Co-op Patronage Dividends/Refunds will vary from the cash flow summary total by the amount of equity payments. For the Profit and Loss Statement enter the sum of the yearly total of columns for line 18 plus the yearly total of line 7 of Form 1.

   4) The Total Cash Operating Income is equal to the sum of lines 1 - 23 of the Profit and Loss Statement.

   5) Hired Labor entries are taken from Payroll forms.

      a) Gross pay is taken from the sum of the total for all employees of the gross pay column for the appropriate job category. The name of open job categories should be written in on the appropriate line of the Profit and Loss Statement.

      b) Employer Paid Employment Taxes is the sum of the totals of columns 31 - 33 and 36 - 40 and for all employees on form 4 plus the sum of the totals of columns 16 - 18 and 20 - 23 for all employees on Form 5.

      c) Miscellaneous benefits/housing is the sum of the total of column 40 for all employees in Form 4 plus the sum of the total of column 15 (when that column represents employer paid housing) for all employees, Form 5.

   6) All other cash expenditures may be taken from the total column of the corresponding lines of the cash flow summary. Remember to write in the names of any open categories.

   7) Total Cash Operating Expenses equal the sum of lines 45 - 73.

   8) Net cash income (E) equals Total cash operating income (A) minus total cash operating expense (C).

c. To accurately reflect the profit and loss of the operation in a given year adjustments must be made for inventory change of stored crops, changes in accounts receivable and gains and losses on capital items sold.

  1) Most orchardists will have large quantities of stored crops when the profit and loss statement is completed at the end of the year. This must be taken into account in the profit and loss statement to more accurately portray the financial status of the operation.

    a) To accurately reflect changes in inventory of stored crops from year to year Form 15 must be completed and up to date with the most recent packout information.

    b) Enter the most recent Total Return of Estimated Stored Crop Value under Ending Inventory for each crop enterprise.

    c) Next refer to the previous year's stored crop inventory.

    d) Find the entry for 1 year ago from the current date.

    e) Enter the Total Returns of the Estimated Stored Crop for that date under Beginning Inventory for each enterprise.

    f) Subtract the beginning inventory from the ending inventory and enter the positive or negative number in the Orchard Business Columns.

  2) Net change of accounts receivable must be accounted for on the profit and loss statement.

    a) Enter the sum of the current balance of all accounts receivable from form 16 of the current year.

    b) Enter the sum of the current balance for one year ago of all accounts receivable from form 16 of the previous year.

    c) Subtract the Beginning year from the Ending year and enter the positive or negative amount.

3) The gain or loss on capital items sold in the current year should be reflected in the profit and loss statement. This information is gained from the Inventories, Capitalization Records and Depreciation Schedules.

  a) Values to calculate the gain or loss on trees sold is obtained from the Tree Inventory/Capitalization Record or the Tree Inventory//Depreciation Schedule.

    (1) Since the Cost Basis or Remaining Book Value on either of these forms reflects a value calculated for income tax purposes this amount may need to be modified by the Fair Market Value or a more realistic depreciable value. Try to establish a consistent way to reflect this.

    (2) If expenses have been capitalized for income tax purposes and are not shown (as direct cash expenses) on previous profit and loss statements use the capitalized cost basis as the value.

    (3) Add the current year's cost basis of any items sold from the Tree Capitalization record to the Remaining Book Value of any items sold from the Tree Depreciation Schedule and enter under cost basis.

    (4) Enter the total of the selling price of the orchard which is the value of the trees.

    (5) Subtract the cost basis from the selling price and enter the positive or negative value.

  b) The values used for gain or loss on machinery or equipment sold may be taken from the depreciation schedule.

    (1) Add the current year's Remaining Book Value of all machinery and equipment sold and enter under cost basis.

    (2) Add the selling price of all machinery and equipment sold and enter under selling price.

    (3) Subtract the cost basis from the selling price and enter the positive or negative number.

c) The values used for the gain or loss on buildings sold may be taken from the Building Depreciation Schedule and is calculated in the same way as machinery and equipment.

d) The values for the gain or loss on land sold may be taken from the land inventory.

(1) Add the current year's fair market value of land of all land sold and enter under cost basis.

(2) Subtract real estate fees from the selling price of all land sold and enter under selling price.

(3) Subtract the cost basis from the selling price and enter the positive or negative number.

(4) An adjustment for net change in accounts payable needs to be accounted for in the profit and loss statement.

4) An adjustment for net change in accounts payable needs to be accounted for in the profit and loss statement.

a) Enter the sum of the Current Balance of all accounts payable from form 20 of the current year.

b) Enter the sum of the current balance for one year ago of all accounts payable from form 20 of the previous year.

c) Subtract the Beginning Year from the Ending Year and enter the positive or negative amount.

d. Several totals may be calculated from these entries.

1) Total Cash Operating Income (A) is equal to the sum of lines 1 - 23. This amount should be equal to income reported for federal income taxes. This does not however equal the total income the operation grossed.

2) Gross Farm Earnings (B) is equal to Total Cash Operating Income (A) plus Net Change in Inventory of Stored Crops (sum of lines 24 - 39) plus Net Change in Accounts Receivable (line 40) plus Gain or Loss in Capital Sales (sum line 41 - 44). This is a reflection of all income generated by the orchard operation.

3) Total Cash Operating Expenses (C) is equal to the sum of all cash expenses (lines 45 - 73). This does not reflect all expenses to the operation.

4) Gross Farm Expenses (D) reflects all losses to the operation in the current year and differs from the Total Cash Operating Expenses by the Net Change in Accounts Payable and the loss due to Depreciation.

5) Net Cash Income (E) is equal to the Total Cash Operating Income [A minus Total Cash Operating Expenses (C)]. This should be equal to the income reported for income tax purposes if Depreciation (lines 75 - 77) are subtracted.

6) Net Farm Income reflects the true net profit or loss of the operation generated in the current year. This is income to owner equity, labor and management and to unpaid family labor. This figure is very good to compare from year to year and to compare between different operations.

3. What measures of profitability are important in analyzing business performance and progress?

Using the completed Profit and Loss Statement to demonstrate how measures of profitability are calculated and used in analyzing the business.

a. Often times unpaid owner/family labor is overlooked as a cost to the operation. It is important to take this cost into consideration. Though it is thought to be "free" to the business, there is an opportunity cost involved in the form of "lost wages" from other employment.

   1) Keep track of these unpaid hours throughout the year. Have unpaid workers (including you, the owner or co-owner) keep a small field book to record hours worked daily.

   2) Enter the yearly total of these hours on G for the operation and H for unpaid spouse/children.

   3) Choose a cash wage value for these hours and enter under $/hour.

      a) This is an opportunity cost.

      b) A good value to place here is the wage the individual could make on another job.

   4) Multiply this amount times the hours for the year and record that amount.

b. Total Man Years of Unpaid Labor (M) is equal to the Total Hours of Unpaid Labor (I) divided by 2400 hours of work per year.

1) This figure can be used to analyze returns to unpaid labor, or unpaid labor hours per bin produced (labor efficiency).

2) This can prove useful as a comparative tool with other operations.

3) This can also be helpful in analyzing cause for changes in the profit and loss from year to year.

a) For example if your spouse takes a full time job off the orchard then profit to the operation may decline due to replacing unpaid labor with hired labor.

b) This still could mean more profit on the whole to the family if increased income offsets labor cost.

c. Returns to Capital (N) is equal to Net Farm Income (F) minus Total Unpaid Labor. This is a measurement of returns to owner management and equity.

d. Percent Return to Capital (O) is equal to Return to Capital (N) divided by Average Total Assets (Q - Financial Statement). This is a measurement which reflects the dollar amount of return to operators management and investment for each dollar of asset.

e. Capital Turnover (P) is equal to the Average Total Assets (Q of the financial statement) divided by the gross Farm Income (B). This measurement reflects the dollars worth of assets needed to generate one dollar worth of gross income.

f. Interest on Equity Capital (R) is equal to the average net worth (R of Financial Statement) times an Interest Rate - Interest Paid. The interest rate used reflects the opportunity cost of having the owner's equity tied up in this particular enterprise as opposed to another. This rate should reflect a realistic rate of return to the operator. For example the rate of 6 Month CD's is 7%.

g. Returns to Operator's Labor and Management equals the Net Farm Income minus Interest on Equity Capital minus unpaid family labor. Over a period of time this figure must be positive or the orchardist would be financially better off to sell out and invest their equity in other ventures.

h. Management Returns equals Returns to Operator's Labor and Management (S) minus Operator's Labor (J). This reflects what managers time over and above labor activities.

F. Group Discussion

Allow time to answer any questions pertaining to the Profit and Loss statement. Encourage enrollees to discuss the amount of returns to labor and management they earn each year. Open a discussion of what items on the profit and loss statement would aid them in analyzing their operation's progress.

G. Conclusions

1. The profit and loss statement indicates the profitability of the operation for a specific period of time.
2. Comparisons of profit and loss statements from year to year measure the growth of the operation.
3. Profit and loss statements can be used to compare operations of similar type and size.
4. Profit and loss not only indicates net cash income but net farm income.
5. Form 27 directly corresponds to other forms in the Orchard Business Management Record Book.
6. Most cash entries for income and expenses on the profit and loss statement may be taken from the cash flow summary.
7. Hired labor totals are taken form Payroll forms 4 and 5.
8. To accurately reflect the profit and loss of a given year adjustments to the net cash income are made by taking into account; 1) stored crop inventory change, 2) net change in accounts receivable, 3) net change in accounts payable, 4) gain or loss on sale of capital items, and 5) depreciation.
9. Unpaid family labor must be taken into account when analyzing profit and loss returns.
10. Measurements of profitability include Returns to Capital, % Returns to Capital, Capital Turnover ratio and Returns to Owner's Management and Labor.

H. Orchard Visit

Take time to go over enrollees profit and loss statement and check for accuracy. Discuss the various measures of profitability and what they indicate about this particular operation.

I. Materials Needed

Instructor/Enrollees:

Orchard Business Management Record Book

TM-I/13/1	What the P & L Can Do For You
TM/HO-I/13/2	Entries for Profit and Loss Statement Sample Orchard
TM/HO-27	

WHAT THE P AND L CAN DO FOR YOU

- REFLECTS THE GROWTH OF THE OPERATION FROM YEAR TO YEAR
- REFLECTS THE EFFECTIVENESS OF MANAGEMENT FROM YEAR TO YEAR
- REFLECTS THE EFFECTIVENSS BETWEEN OPERATIONS OF LIKE SIZE AND TYPE
- ALLOWS FOR AN ACCRUAL OF INCOME AND EXPENSES
- IDENTIFIES THE STRENGTHS AND WEAKNESSES OF THE OPERATION
- HELPFUL IN FORWARD PLANNING
- HELPFUL IN DETERMINING WHETHER THE BUSINESS CAN TAKE ON MORE DEBT

SAMPLE ENTRIES FOR PROFIT AND LOSS STATEMENT

Entries for the Profit and Loss Statement can be taken from forms already completed. These forms include The Cash Flow Statement, Stored Crop Inventories, and the Depreciation schedule/Inventory.

Additional information about the sample orchard you will need to complete the Profit and Loss Statement includes the following:

1). There was no change in accounts receivable between the two years the operator was paid in full on both dates.

2). Expenses for the P & L may be taken from the Cash Flow Summary except for the following items.

a). Hired labor gross wages:

Pruning	10110.00
Irrigation	5366.00
Thinning	3291.00
Chem. App.	2372.00
Harvest	22871.00
Mowing	541.00
Gen. Maint.	4776.00

b). Accounts payable for the end of the year equals 205.00 and the beginning of the year equals 1000.00.

3). The operator worked 2400hrs. on his operation and figured his wage at 8.34/hour.

4). He figures his interest rate for interest on equity capital to be 8.5%.

FORM 26

PROFIT AND LOSS STATEMENT

YEAR 88

INCOME		ORCHARD BUSINESS
CROP RECEIPTS: ENT. #(S): 121	1	51721
ENT. #(S): 122	2	23890
ENT. #(S): 211	3	40890
ENT. #(S): 212	4	17817
ENT. #(S): 313	5	63123
ENT. #(S): 314	6	27515
ENT. #(S): 531	7	34081
ENT. #(S): 532	8	8109
ENT. #(S): 533	9	3793
ENT. #(S):	10	
ENT. #(S):	11	
ENT. #(S):	12	
ENT. #(S):	13	
ENT. #(S):	14	
ENT. #(S):	15	
ENT. #(S):	16	
CUSTOM WORK	17	1050
INTEREST	18	2366
COOP PATRONAGE DIVIVENDS/REFUNDS	19	
OTHER:	20	
	21	
	22	
	23	
TOTAL CASH OPERATING INCOME	A	274355
STORED CROPS (END INV. - BEG. INV. = NET CHANGE IN INV. +/-)		
ENT. #(S): 121 39876 - 45622 = <5746>	24	<5746>
ENT. #(S): 313 63800 - 60717 = 3083	25	3083
ENT. #(S): - =	26	
ENT. #(S): - =	27	
ENT. #(S): - =	28	
ENT. #(S): - =	29	
ENT. #(S): - =	30	
ENT. #(S): - =	31	
ENT. #(S): - =	32	
ENT. #(S): - =	33	
ENT. #(S): - =	34	
ENT. #(S): - =	35	
ENT. #(S): - =	36	
ENT. #(S): - =	37	
ENT. #(S): - =	38	
ENT. #(S): - =	39	
ACCTS. REC. (END YEAR - (BEG. YEAR = NET CHANGE +/-)		
- =	40	
CAPITAL GAINS/LOSSES (CAPITAL SALES - COST BASIS = NET CHG. +/-)		
TREES - =	41	
MACHINERY/EQUIPMENT 1260 - 1500 =	42	< 300>
BUILDINGS - =	43	
LAND - =	44	
GROSS FARM EARNINGS (A + SUM 24 - 44)	B	271392

EXPENSES		ORCHARD BUSINESS
HIRED LABOR (GROSS WAGES): PRUNING	45	10110
IRRIGATION	46	5366
THINNING	47	3291
CHEMICAL APPLICATION	48	2372
HARVEST	49	22871
Mowing	50	541
General Maint.	51	4776
	52	
EMPLOYMENT TAXES (EMPLOYER PAID)	53	5233
MISCELLANEOUS BENEFITS/HOUSING (EMPLOYER PAID)	54	
PEST CONTROL	55	9859
FERTILIZER/LIME	56	1627
IRRIGATION ASSESSMENT	57	2322
UTILITIES	58	1176
FUEL/OIL	59	2702
TRUCK/AUTO	60	705
REPLACEMENT TREES	61	400
MACHINERY MAINTENANCE	62	1143
IRRIGATION/BUILDING MAINTENANCE	63	1061
TAXES	64	8719
INSURANCE	65	2500
INTEREST	66	5622
WAREHOUSE CHARGES: PACKING/HANDLING	67	94620
CROP STORAGE	68	6685
	69	4434
OTHER:	70	3000
	71	500
	72	
	73	
TOTAL CASH OPERATING EXPENSES	C	201625
ACCOUNTS PAYABLE (END YEAR - BEG. YEAR = NET CHANGE +/-)		
205 - 1000 =	74	< 750>
DEPRECIATION: TREES	75	160
MACHINERY/EQUIPMENT	76	8036
BUILDINGS	77	1128
GROSS FARM EXPENSES (C + (SUM 74-77))	D	210209
NET CASH INCOME (A - C)	E	72720
NET FARM INCOME (B - D)	F	61183

INDICES OF PROFITABILITY		
UNPAID LABOR: HOURS X $/HOUR = TOTAL $		
OPERATOR G) 2400 8.34	J	20016
FAMILY MEMBERS H)	K	
TOTAL I)	L	20016
TOTAL MAN YEARS OF UNPAID LABOR I/2400	M	1
RETURN TO CAPITAL: NET FARM INCOME - TOTAL UNPAID LABOR (F-M)	N	41167
% RETURN TO CAPITAL: RETURN TO CAPTL./AVG TTL. ASSETS (N/P(FORM 25))	O	.07
CAPITAL TURNOVER: AVG. TTL ASSETS/GROSS FARM INCOME (P(FORM 25)/B))	P	.15

INTEREST ON EQUITY CAPITAL: AVERAGE TOTAL ASSETS X INTEREST RATE: Q) 7.5 - INTEREST PAID (P(FORM 25) - Q - LINE 18)) 66	R	43290
RETURN TO OPERATORS LABOR AND MANAGEMENT: INTEREST ON EQUITY CAPITAL - UNPAID FAMILY LABOR (R - K)	S	43290
RETURNS TO MANAGEMENT: RETURNS TO OPERATORS LABOR AND MANAGEMENT - OPERATORS LABOR (S - G)	T	23274

FORM 26

PROFIT AND LOSS STATEMENT

YEAR

INCOME		ORCHARD BUSINESS	EXPENSES		ORCHARD BUSINESS
CROP RECEIPTS: ENT. #(S):	1		HIRED LABOR (GROSS WAGES): PRUNING	45	
ENT. #(S):	2		IRRIGATION	46	
ENT. #(S):	3		THINNING	47	
ENT. #(S):	4		CHEMICAL APPLICATION	48	
ENT. #(S):	5		HARVEST	49	
ENT. #(S):	6			50	
ENT. #(S):	7			51	
ENT. #(S):	8			52	
ENT. #(S):	9		EMPLOYMENT TAXES (EMPLOYER PAID)	53	
ENT. #(S):	10		MISCELLANEOUS BENEFITS/HOUSING (EMPLOYER PAID)	54	
ENT. #(S):	11		PEST CONTROL	55	
ENT. #(S):	12		FERTILIZER/LIME	56	
ENT. #(S):	13		IRRIGATION ASSESSMENT	57	
ENT. #(S):	14		UTILITIES	58	
ENT. #(S):	15		FUEL/OIL	59	
ENT. #(S):	16		TRUCK/AUTO	60	
CUSTOM WORK	17		REPLACEMENT TREES	61	
INTEREST	18		MACHINERY MAINTENANCE	62	
COOP PATRONAGE DIVIVENDS/REFUNDS	19		IRRIGATION/BUILDING MAINTENANCE	63	
OTHER:	20		TAXES	64	
	21		INSURANCE	65	
	22		INTEREST	66	
	23		WAREHOUSE CHARGES: PACKING/HANDLING	67	
			CROP STORAGE	68	
TOTAL CASH OPERATING INCOME	A			69	

ENT. #(S): - =	25	
ENT. #(S): - =	26	
ENT. #(S): - =	27	
ENT. #(S): - =	28	
ENT. #(S): - =	29	
ENT. #(S): - =	30	
ENT. #(S): - =	31	
ENT. #(S): - =	32	
ENT. #(S): - =	33	
ENT. #(S): - =	34	
ENT. #(S): - =	35	
ENT. #(S): - =	36	
ENT. #(S): - =	37	
ENT. #(S): - =	38	
ENT. #(S): - =	39	
ACCTS. REC. (END YEAR - (BEG. YEAR = NET CHANGE +/-)		
- =	40	
CAPITAL GAINS/LOSSES (CAPITAL SALES - COST BASIS = NET CHG. +/-)		
TREES - =	41	
MACHINERY/EQUIPMENT - =	42	
BUILDINGS - =	43	
LAND - =	44	
GROSS FARM EARNINGS (A + SUM 24 - 44)	B	

	72	
	73	
TOTAL CASH OPERATING EXPENSES	C	
ACCOUNTS PAYABLE (END YEAR - BEG. YEAR = NET CHANGE +/-)		
- =	74	
DEPRECIATION: TREES	75	
MACHINERY/EQUIPMENT	76	
BUILDINGS	77	
GROSS FARM EXPENSES (C + (SUM 74-77))	D	
NET CASH INCOME (A - C)	E	
NET FARM INCOME (B - D)	F	

INDICES OF PROFITABILITY

UNPAID LABOR: HOURS X $/HOUR = TOTAL $		
OPERATOR G)	J	
FAMILY MEMBERS H)	K	
TOTAL I)	L	
TOTAL MAN YEARS OF UNPAID LABOR I/2400	M	
RETURN TO CAPITAL: NET FARM INCOME - TOTAL UNPAID LABOR (F-M)	N	
% RETURN TO CAPITAL: RETURN TO CAPTL./AVG TTL. ASSETS (N/P(FORM 25))	O	
CAPITAL TURNOVER: AVG. TTL ASSETS/GROSS FARM INCOME (P(FORM 25)/B))	P	
INTEREST ON EQUITY CAPITAL: AVERAGE TOTAL ASSETS X INTEREST RATE: Q)____________ - INTEREST PAID (P(FORM 25) - Q - LINE 18))	R	
RETURN TO OPERATORS LABOR AND MANAGEMENT: INTEREST ON EQUITY CAPITAL - UNPAID FAMILY LABOR (R - K)	S	
RETURNS TO MANAGEMENT: RETURNS TO OPERATORS LABOR AND MANAGEMENT - OPERATORS LABOR (S - G)	T	

ORCHARD BUSINESS MANAGEMENT

UNIT I: ESTABLISHING AN ORCHARD ACCOUNTING SYSTEM

VI. Lesson 14: Maintaining Cultural Records

A. Review

The previous lesson, Preparing the Profit and Loss Statement should be reviewed. Possible conclusions from that lesson include:

1. The profit and loss statement indicates the profitability of the operation for a specific period of time.
2. Comparisons of profit and loss statements from year to year measure the growth of the operation.
3. Profit and loss statements can be used to compare operations of similar type and size.
4. Profit and loss not only indicates net cash income but net farm income.
5. Form 27 directly corresponds to other forms in the Orchard Business Management Record Book.
6. Most cash entries for income and expenses on the profit and loss statement may be taken from the cash flow summary.
7. Hired labor totals are taken form Payroll forms 4 and 5.
8. To accurately reflect the profit and loss of a given year adjustments to the net cash income are made by taking into account; 1) stored crop inventory change, 2) net change in accounts receivable, 3) net change in accounts payable, 4) gain or loss on sale of capital items, and 5) depreciation.
9. Unpaid family labor must be taken into account when analyzing profit and loss returns.
10. Measurements of profitability include Returns to Capital, % Returns to Capital, Capital Turnover ratio and Returns to Owner's Management and Labor.

B. Objective

To maintain cultural data and understand how these records are used to improve the orchard operation.

C. Motivation

1. Ask enrollees how many times they have tried to remember what they did in their orchards in previous crop years but could not remember very precisely.

2. Impress upon enrollees that orchard performance during the current cropping season is profoundly affected by cultural practices over the preceding years. It is important that the orchardist be able to accurately relate previous seasons cultural practices to tree/orchard performance today.

3. Relying on ones memory just doesn't work well enough. There is no substitute for good, permanent written cultural records.

D. Key Questions

1. How do cultural records tie into financial records?

2. What are some guidelines for maintaining information for cultural records?

3. What are some guidelines for maintaining an irrigation record and for scheduling irrigations?

4. What are the guidelines for maintaining a record of chemical applications?

E. Introduction of Information

1. How do cultural records tie into financial records?

   Query enrollees as to their opinions on this question. List their responses on the board and establish a clear rationale. Steer the discussion to include the following.

   a. Horticultural decisions must be tempered with financial management considerations and vice-versa.

   b. Horticultural practices will affect the financial status of the orchard business just as financial considerations will affect horticultural strategies.

   c. Historical cultural data will enable the orchardist to correlate yields and packouts to particular horticultural practices.

   d. Historical cultural data in conjunction with crop yield and packout data will enable the orchardist to adjust horticultural practices in subsequent seasons that are similar to past seasons and situations.

2. What are some guidelines for maintaining information for cultural records?

   Ask enrollees how they currently keep cultural records. Most will indicate they carry a breast pocket note book or keep some kind of notebook in their vehicle. Also ask them what kinds of items they record. List these items on the board.

   a. Show TM-30, Diary of Cultural Practices and compare the list on the board with categories in the record book. Note that some items on the board may not have a category on Form 30, however they may be recorded on other forms in the cultural records section.

   b. Suggest that enrollees start or continue to carry a pocket notebook in which to record cultural information and tree/crop observations while in the field and then at regularly scheduled periods enter that information into the permanent records.

   c. Briefly discuss with students how various columns in Form 30 could be used.

      1) Note that column 1 should be used to indicate location/block or enterprise if appropriate.

      2) Columns 2, 3 and 4 are to record dates of pruning and any pertinent comments such as heavy spur renewal efforts, an abundance of major thinning out cuts, or general tree appearance.

      3) Columns 5 - 12 are to record bloom/pollination information.

         a) Record beginning and ending dates for the bloom period as well as the date of full bloom in columns 5, 6, and 7.

         b) It is also useful to describe weather condition during the bloom period (see column 8).

         c) Column 9 is to be used to record the number of hives used to facilitate crop pollination.

            (1) Space is provided for brief comment, such as hives strength, distribution, etc.

         d) Sources of pollen should be recorded in column 10. Note dates of pollenizer bloom.

e) Record notes on fruit set in column 11. Notes might include:

  (1) Information about clusters per unit of branch

  (2) General spur vigor

  (3) Fruit set/cluster

  (4) Crop estimations

f) An additional column (12) is reserved for any additional comments or observations.

g) Fruit thinning records are invaluable. Orchardists that are successful at chemical thinning of fruits are those that have learned from experience and have noted how their trees reacted to various treatments under various conditions.

  (1) In columns 13 and 14 record dates of thinning treatment application as well as the chemicals used and rates. Also note tree/bloom conditions.

h) Columns 16 - 27 are to record harvest information.

Physiological maturity of fruits dictates its storage capabilities. As such fruits maturity is assessed by a variety of methods so that they can be harvested at optimum maturities for their intended use.

Some tests (starch, pressure, soluble solids) are more definitive indicators than are others (DFFB, color, size) but all are useful.

Suggest that growers work with their fieldmen to obtain pressure, soluble solids, and starch test results. Rarely will a grower have the necessary tools or materials for these tests.

  (1) Columns 16 and 17 are to record harvest dates.

  (2) Columns 18, 19, 20, 21, 22 and 23 are to record data of various indices of fruit maturity. Data generation (and recording) will start well in advance of harvest and continue through harvest.

    (a) Size, color and DFFB can be easily estimated by the orchardist.

(b) A fieldman can provide data on pressure, starch and soluble solids.

(3) Columns 24, 25 and 26 are to record yield information.

(a) Record number of bins harvested in column 24.

(b) Record number of acres from which the above bins were harvested in column 25.

(c) By dividing the number of bins (column 24) by the number of acres (column 25) the number of bins/acre can be calculated. Record that number (bins/acre) in column 26.

3. What are some guidelines for maintaining an irrigation record and scheduling irrigations?

There are several ways to approach irrigation scheduling. Some are more horticulturally sound than others. Probably the best way to time irrigations is to assess when tree water consumption approaches depletion of available water reserves held in the soil profile. Durations of irrigation sets is a function of irrigation system application rates and the water holding capacity of the soil root zone.

Show TM-28 Irrigation Record/Irrigation Schedule. Note the column headings.

a. One simplified, yet effective approach to irrigation scheduling is to examine the root zone profile (with a hand probe or auger) to assess its moisture status. This along with visual observation of the trees and weather conditions can be used to determine when it is time to irrigate.

1) Record observation data in columns 1 (date of observations), 2 (soil moisture conditions), 3 (depth of observation) and 4 (tree/crop conditions).

2) Record irrigation applications as hours/set in column 6.

3) Note that observation data many times will not be followed by irrigation set data in many observation instances.

b. A second and very good method of timing irrigations was developed by Tim Smith, Washington State University Cooperative Extension. This system is based on estimations of water loss from the soil (evapotranspiration), soil water holding capacity, and irrigation system application rates.

1) Show TM-28 Irrigation Schedule. Note column heading and relate those headings to the previous discussion. Detailed discussion will be forthcoming.

    a) Then note calculation process at the right of Form 28. Note that these calculation must be made before the schedule can be calculated. Run through a hypothetical situation.

        (1) Start with Item I, Soil Type. Show TM/HO-I/14/1, Available Water Storage Capacities of Various Soil Texture Classifications.

        (2) Explain that enrollees can find out the type of soil in their orchard by consulting a soil survey or by laboratory analysis.

        (3) Also note that soil texture can change dramatically from location in the one orchard to another.

        (4) Pick one soil type (loam) for this example. Point it out on the overhead transparency.

c. Calculate soil water storage depth and record on Line J. Value should reflect depth of orchard root zone to a maximum of 3 feet

d. Calculate usable water per foot (K). A loam soil will hold 1.2 - 1.3 inches of available water per foot.

e. Calculate usable water storage capacity, (J x K), and record on line L of transparency.

    1) Soil types and as such water holding abilities may vary through the depth of the root zone profile. Add the water holding capacities of the various soils as per the depth of each until a maximum depth of 3 feet is reached.

    2) In this example J (3 ft.) x K (1.25 inches per foot) equal 3.75 inches of available water held in this loam soil.

f. Now we must assess the capability of the irrigation system which will be called the net application rate.

    1) First capture water from a random sampling of sprinkler

heads throughout the block in a bucket marked in quarts and gallons. Time this in minutes and record average value of gallons per minute from sprinkler heads on line M.

2) For this example record the value 0.55 gallons per minute on the transparency.

g. Calculate N (area covered) by multiplying lateral by head spacing of the irrigation system. For this example use 40 feet x 30 feet equal 1200 ft^2. Record this value on the transparency.

h. Calculate gross application rate and record on line O of the transparency.

1) Note 96.3 is a constant which converts gallons/minute to inches per hour.

2) In this example gross application rate is:

$$\frac{0.55 \times 96.3}{1200} = \frac{144.5}{1200} = 0.2 \text{ inches per hour}$$

i. No irrigation system is 100% efficient, that is not all the water emitted from the sprinkler head infiltrates the soil profile to be stored for plant use. Therefore we must calculate a net application rate (P) from the gross application rate (O).

1) Each grower will have to assess the efficiency of their system. An average value might be 75% for an under tree system. Over tree systems and old uncared for systems will have lower efficiency values.

2) For this example use a .75 efficiency rating. Multiply gross application rate 0.2 inches/hour x .75 (equals .15 inches per hour) and record this value on line P of the transparency.

j. Discuss with enrollees that with item L, usable water storage capacity, and item P, net application rate, they can now calculate how long they must run their irrigation system to fully replenish soil water held in the root zone. It may be useful to liken this to filling a glass with water. An 8 ounce glass will not hold twelve ounces of water. No matter what.

1) To calculate divide item L by item P and record result on line Q. In this example:

   a) $$\frac{3.1\ (L)}{.15\ (P)} = 20.6$$ hour set to fully recharge the soil.

   b) Note that convenience in this instance will dictate a 24 hour set.

k. The next step is to determine when to irrigate.

1) To calculate the consumption of water and soil water loss via evaporation merely add daily evaporation pan readings and multiply by monthly Kc factors until the accumulated value-equals available water holding capacity of your orchard soil.

   a) Evaporation pan readings are in the local newspaper. values are for the Wenatchee, WA area but all areas in our region will not vary significantly. Slight adjustments are a matter of judgement.

   b) Record previous pan reading in column A and current pan reading in column B. Record their sum (A + B) in Column C. Maintain a running tally along with observation data.

   c) Show TM/HO-I/14/2 Kc Factors. Note that trees use differing quantities of water at different times of the season.

      (1) The higher the Kc factor the more water the trees consume.

      (2) Record appropriate Kc Factor in column D.

   d) Calculate crop water usage (E) by multiplying value in column C by the Kc Factor (column D). Record this value in column E.

   e) Record usable water storage capacity (Line L) in column F.

   f) Subtract value in column F from value in column E (E - F) and record the remaining available water in column G. When column G value approaches 0 it is time to irrigate using a set length as calculated and recorded on line Q.

   g) Column H can be used to record an estimated time for the next irrigation.

4. What are the guidelines for maintaining a record of chemical applications.

   Discuss with enrollees the value of keeping chemical application records. Note again this information should be recorded in their pocket notebook and then transcribed to the permanent record book.

   a. Show TM-29, Chemical Application, and note the column headings .

      1) Record date of application in column 1.

      2) Record location or enterprise number in column 2.

      3) Record weather conditions in column 3. Weather conditions before and after applications have a great affect on the effectiveness of an agricultural chemical.

      4) Record application method in column 4.

      5) Record crop growth stage -- and growth observations in column 5.

      6) Record number of acres in column 6.

      7) Columns 7 - 10 are for recording pesticide application information including material, rate/acre, total applied and comments.

      8) Columns 11 - 14 are for recording applications of growth regulating substances other than thinning chemicals. Record material, rate/acre, total material applied and comments.

      9) Columns 15 - 19 are to record fertilizer applications. Record material, rate/acre, total applied and any comments.

F. Group Discussion

There will be many questions and much discussion on irrigation scheduling. Be sure to allow sufficient time for discussion. You may want to discuss other approaches to irrigation scheduling and how the record book can be adapted.

G. Conclusions

1. Cultural records must be maintained to evaluate orchard financial performance.
2. Horticultural practices and financial management affect each other.
3. Field notes of horticultural practices should be taken and transferred to permanent records.
4. Record pertinent information on, pruning, bloom, pollination, fruit set, thinning, irrigation, chemical applications, indices of maturity and harvest information.

H. Orchard Visit

Spend time with enrollees discussing irrigation scheduling calculations and records as well as other cultural records. Examine to see if information is being transferred from the field book to the permanent record book.

I. Materials Needed

Instructor/Enrollees

TM-30	Diary of Cultural Practices (Form 30)
TM-28	Irrigation Record/Schedule (Form 28)
TM/HO-I/14/1	Available Water Storage Capacities for Various Soil Texture Classifications
TM/HO-I/14/2	Kc Factors for Tree Fruit Corps in N.C.Washington
TM-29	Chemical Applications (Form 29)

TM/HO-I/14/1

DETERMINE THE USEABLE WATER STORAGE

CAPACITY OF YOUR SOIL

BELOW IS THE APPROXIMATE AMOUNT OF USEABLE WATER STORED IN SOIL IF THE TREES DRAW 50 PERCENT OF THE AVAILABLE MOISTURE BETWEEN IRRIGATIONS:

YOUR SOIL:	USEABLE WATER PER FOOT:		
SILT OR CLAY LOAM	1.25	TO	1.40
LOAM	1.20	TO	1.30
VERY FINE SANDY LOAM	1.10	TO	1.20
FINE SANDY LOAM	.90	TO	1.10
SANDY LOAM	.85	TO	.90
LOAMY FINE SAND	.65	TO	.85
FINE SAND	.50	TO	.65
SAND	.40	TO	.50
COARSE SAND	.20	TO	.35

TM/HO-I/14/2

Kc FACTORS

*	APRIL	.40
*	MAY	.60
*	JUNE	.90
*	JULY	1.05
*	AUGUST	1.00
*	SEPTEMBER	.90
*	OCTOBER	.90

FORM 30

DIARY OF CULTURAL PRACTICES

PAGE YEAR

	LOCATION/ ENT: #(S)	PRUNING			BLOOM								
		DATE		COMMENTS	DATE		FULL BLOOM	WEATHER CONDITIONS	HIVES/ACRE	POLLIN SOURCE	SET	COMMENTS	
		FROM	TO		FROM	TO							
1													1
2													2
3													3
4													4
5													5
6													6
7													7
8													8
	1	2	3	4	5	6	7	8	9	10	11	12	

FORM 30

DIARY OF CULTURAL PRACTICES

PAGE YEAR

	THINNING			HARVEST												
	DATE			DATE		INDICES OF MATURITY										
	FROM	TO	COMMENTS	FROM	TO	DFFB	AVG. SIZE	COLOR	SOLUBLE SOLIDS	PRESSURE	STARCH IODINE	TOTAL # BINS	# ACRES	# BINS /ACRE	COMMENTS	
1																1
2																2
3																3
4																4
5																5
6																6
7																7
8																8
	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

FORM 28 LOCATION:

IRRIGATION RECORD

PAGE YEAR

	DATE	SOIL MOISTURE CONDITIONS	DEPTH	TREE/CROP CONDITIONS	WEATHER CONDITIONS	HOURS/ SET	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
	1	2	3	4	5	6	

FORM 28 LOCATION:

IRRIGATION SCHEDULE

PAGE YEAR

	PREVIOUS EVAPORATIVE PAN READING	CURRENT EVAPORATIVE PAN READING	DIFFERENCE (A-B)	CROP USE FACTOR FOR MONTH Kc	CROP WATER USAGE (C x D)	USEABLE WATER STORAGE CAPACITY (L)	REMAINING USEABLE WATER (E - F)	ESTIMATED TIME TO NEXT IRRIGATION
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
	[illegible]	B	C	D	E	F	G	H

I) SOIL TYPE: __________

J) WATER STORAGE DEPTH: __________

K) USEABLE WATER/FOOT: __________

L) USEABLE WATER STORAGE CAPACITY: J x K = __________

M) GALLONS/MINUTE FROM SPRINKLER: __________

N) AREA COVERED: LATERAL SPACING x HEAD SPACING = __________

O) GROSS APPLICATION RATE FOR SPRINKLERS: $\frac{M \times 96.3}{N}$ = __________

P) NET APPLICATION RATE FOR SPRINKLERS: O x .75 (EFFICIENCY FACTOR) = __________

Q) # OF HOURS/SET TO BRING SOIL TO FIELD CAPACITY: L / P = __________

FORM 29 MONTH(S)

CHEMICAL APPLICATION

PAGE YEAR

	DATE	LOCATION/ ENT. #(S)	WEATHER CONDITIONS	APPLICATION METHOD	GROWTH STAGE	# ACRES	PESTICIDES				
							MATERIAL	RATE/ACRE	TOTAL APPLIED	COMMENTS	
1											1
2											2
3											3
4											4
5											5
6											6
7											7
8											8
9											9
10											10
11											11
12											12
13											13
14											14
15											15
16											16
	1	2	3	4	5	6	7	8	9	10	

FORM 29 MONTH(S)

CHEMICAL APPLICATION

PAGE YEAR

	GROWTH REGULATORS				FERTILIZER					
	MATERIAL	RATE/ ACRE	TOTAL APPLIED	COMMENTS	MATERIAL	RATE/ ACRE	RATE/ TREE	**TOTAL APPLIED**	COMMENTS	
1										1
2										2
3										3
4										4
5										5
6										6
7										7
8										8
9										9
10										10
11										11
12										12
13										13
14										14
15										15
16										16
	11	12	13	14	15	16	17	18	19	

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